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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HARDEE Examiner #: _____ Date: 1/23/00
Art Unit: 1751 Phone Number 30 21318 Serial Number: 10/693.194
Mail Box and Bldg/Room Location: 9A41 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____
Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Whatever you can find. Elected
oxidant is underlined. If you can't
find good art with that, please
broaden the search. Thanks.

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Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>1-24-06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
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one or more surfactants, at least one of which is selected from the group consisting of tetrabutylammonium hydrogen sulfate (TBAHS), Triton-X, and cetyltrimethylammonium (CTMA).

32. The water-based composition of claim 31, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, the surfactant(s) are present in a concentration of about 0.01-15% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

33. The water-based composition of claim 31, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

34. A water-based composition for decontaminating viruses, bacteria, spores, fungi, and toxins, comprising:

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds;

one or more halides, at least one of which is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater; and

a buffer capable of bringing the composition to a pH in the range of approximately 4 to approximately 10.

co-solvent(s) are present in a concentration of about 10-80% w/v, and the buffer is present in a concentration range of about 0.5-10% w/v.

28. A water-based composition for decontaminating viruses, bacteria, spores, fungi, and toxins, comprising:

one or more oxidants; and

one or more halides.

29. The water-based composition of claim 28, wherein

at least one of the oxidants is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds; and

at least one of the halides is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater.

30. The water-based composition of claims 28 or 29 wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, and the halide(s) are present in a concentration of about 0.1-40% w/v.

31. The water-based composition of claims 28 or 29 further comprising

one or more cosolvents, at least one of which is selected from the group consisting of acetonitrile, propylene carbonate, propylene glycol, polypropylene glycol and tert-butanol; and

one or more halides, at least one of which is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater; and

a buffer capable of bringing the composition to a pH in the range of approximately 4 to approximately 10.

22. The water-based composition of claim 21, wherein the buffer is selected from the group consisting of alkali metal salt forms of carbonate and bicarbonate, or phosphate.

23. The water-based composition of claim 21, having a pH of between approximately 6 and approximately 8.5.

24. The water-based composition of claim 22, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, and the buffer is present in a concentration range of about 0.05-20% w/v.

25. The water-based composition of claims 21 or 22, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, and the buffer is present in a concentration range of about 0.5-10% w/v.

26. The water-based composition of claims 21, 22 or 23, further comprising one or more cosolvents; and one or more surfactants.

27. The water-based composition of claim 26, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v, the

18. The water-based composition of claims 15 or 16, further comprising

one or more cosolvents, at least one of which is selected from the group consisting of acetonitrile, propylene carbonate, propylene glycol, polypropylene glycol and tert-butanol; and

one or more surfactants, at least one of which is selected from the group consisting of tetrabutylammonium hydrogen sulfate (TBAHS), Triton-X, and cetyltrimethylammonium (CTMA).

19. The water-based composition of claim 18, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, the surfactant(s) are present in a concentration of about 0.01-15% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

20. The water-based composition of claim 18, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

21. A water-based composition for decontaminating organosulfur and organophosphorous-containing compounds, and chemical blister and nerve agents comprising:

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds;

13. The water-based composition of claims 8, 9 or 10, further comprising one or more cosolvents; and one or more surfactants.

14. The water-based composition of claim 13, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v, the co-solvent(s) are present in a concentration of about 10-80% w/v, and the buffer is present in a concentration range of about 0.5-10% w/v.

15. A water-based composition for decontaminating organosulfur and organophosphorous-containing compounds, and chemical blister and nerve agents comprising:

one or more oxidants; and

one or more halides.

16. The water-based composition of claim 15, wherein

at least one of the oxidants is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds; and

at least one of the halides is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater.

17. The water-based composition of claims 15 or 16 wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, and the halide(s) are present in a concentration of about 0.1-40% w/v.

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds;

one or more halides, at least one of which is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater; and

a buffer capable of bringing the composition to a pH in the range of approximately 4 to approximately 10.

9. The water-based composition of claim 8, wherein the buffer is selected from the group consisting of alkali metal salt forms of carbonate and bicarbonate, or phosphate.

10. The water-based composition of claim 8, having a pH of between approximately 6 and approximately 8.5.

11. The water-based composition of claim 8, 9 or 10, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, and the buffer is present in a concentration range of about 0.05-20% w/v.

12. The water-based composition of claims 8, 9 or 10, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, and the buffer is present in a concentration range of about 0.5-10% w/v.

one or more oxidants, at least one of which is selected from the group consisting of: a monopersulfate compound in the forms derived from alkali metal salt of peroxymonosulfuric acid alone or in combination with the alkali metal salts of sulfuric or persulfuric acid; perborate, peracetate, percarbonate, hydrogen peroxide; and dioxirane compounds;

one or more halides, at least one of which is selected from the group consisting of an alkali metal, alkaline earth or transition metal halide salt; or seawater;

one or more cosolvents, at least one of which is selected from the group consisting of acetonitrile, propylene carbonate, propylene glycol, polypropylene glycol and tert-butanol; and

one or more surfactants, at least one of which is selected from the group consisting of tetrabutylammonium hydrogen sulfate (TBAHS), Triton-X, and cetyltrimethylammonium (CTMA).

6. The water-based composition of claim 5, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, the surfactant(s) are present in a concentration of about 0.01-15% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

7. The water-based composition of claim 5, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v and the co-solvent(s) are present in a concentration of about 10-80% w/v.

8. A water-based composition for decontamination of chemical and biological toxicants comprising:

35. The water-based composition of claim 34, wherein the buffer is selected from the group consisting of alkali metal salt forms of carbonate and bicarbonate, or phosphate.

36. The water-based composition of claim 34, having a pH of between approximately 6 and approximately 8.5.

37. The water-based composition of claim 34, wherein the oxidant(s) are present in a concentration of about 0.1-40% w/v, the halide(s) are present in a concentration of about 0.1-40% w/v, and the buffer is present in a concentration range of about 0.05-20% w/v.

38. The water-based composition of claims 34 or 35, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, and the buffer is present in a concentration range of about 0.5-10% w/v.

39. The water-based composition of claims 34, 35 or 36, further comprising one or more cosolvents; and one or more surfactants.

40. The water-based composition of claim 39, wherein the oxidant(s) are present in a concentration of about 1-20% w/v, the halide(s) are present in a concentration of about 1-20% w/v, the surfactant(s) are present in a concentration of about 0.01-5% w/v, the co-solvent(s) are present in a concentration of about 10-80% w/v, and the buffer is present in a concentration range of about 0.5-10% w/v.

=> file reg

FILE 'REGISTRY' ENTERED AT 13:42:21 ON 24 JAN 2006
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FILE 'HCAPLUS' ENTERED AT 12:45:49 ON 24 JAN 2006
L1 13 SEA DELCOMYN ?/AU
L2 1250 SEA HENLEY ?/AU
L3 4 SEA L1 AND L2

FILE 'REGISTRY' ENTERED AT 12:48:05 ON 24 JAN 2006
E SODIUM CHLORIDE/CN
L4 1 SEA "SODIUM CHLORIDE"/CN
E MONOPERSULFURIC ACID/CN
L5 1 SEA "MONOPERSULFURIC ACID"/CN
E MONOPERSULFURIC ACID, SODIUM SALT/CN
E PEROXYMONOSULFURIC ACID/CN
L6 1 SEA "PEROXYMONOSULFURIC ACID"/CN
L7 1 SEA L5 OR L6

FILE 'HCA' ENTERED AT 12:55:54 ON 24 JAN 2006
L8 408588 SEA L4 OR NA CL OR SEAWATER# OR OCEANWATER# OR (SEA OR
OCEAN##) (A) (WATER# OR H2O) OR SALTWATER? OR SALT(W)WATER?

L9 293 SEA (L7/D OR L7/DP) (3A) (SALT# OR SODIUM# OR LITHIUM# OR
POTASSIUM# OR NA OR LI OR K) OR (MONOPERSULFATE# OR
PEROXY SULFURIC#) (2A) (LITHIUM# OR SODIUM# OR POTASSIUM#
OR LI OR NA OR K)

FILE 'LCA' ENTERED AT 13:02:03 ON 24 JAN 2006
L10 15215 SEA (MIX? OR BLEND? OR ADMIX? OR COMMIX? OR IMMIX? OR
INTERMIX? OR DOPE# OR DOPING# OR DOPANT? OR IMPREGNAT?
OR COMPOSIT? OR COMPN# OR COMPSN# OR FORMULAT? OR
COMBINAT? OR INTERSPER? OR AMALGAM?)/BI,AB

FILE 'HCA' ENTERED AT 13:04:21 ON 24 JAN 2006
L11 772533 SEA (AQ# OR AQUEOUS? OR WATER? OR H2O) (2A) (MIX? OR
BLEND? OR ADMIX? OR COMMIX? OR IMMIX? OR INTERMIX? OR
COMPOSIT? OR COMPN# OR COMPSN# OR FORMULAT? OR COMBINAT?
OR SOLUTION? OR SOLN#)

FILE 'REGISTRY' ENTERED AT 13:05:45 ON 24 JAN 2006

L12 8617 SEA (M(L)X)/ELS (L) 2/ELC.SUB

FILE 'HCA' ENTERED AT 13:10:12 ON 24 JAN 2006

L13 622434 SEA L12 OR (METAL#### OR ALK# OR ALKALI# OR ALKALINE#) (A)
(HALIDE# OR DIHALIDE# OR TRIHALIDE# OR TETRAHALIDE# OR
FLUORIDE# OR DIFLUORIDE# OR CHLORIDE# OR DICHLORIDE# OR
BROMIDE# OR DIBROMIDE# OR IODIDE# OR DIIODIDE#) OR MX OR
MX2 OR MX3 OR MX4

FILE 'REGISTRY' ENTERED AT 13:15:11 ON 24 JAN 2006

L14 E PEROXYMONOSULFURIC ACID, MONOLITHIUM SALT/CN
1 SEA "PEROXYMONOSULFURIC ACID, MONOLITHIUM SALT"/CN
E PEROXYMONOSULFURIC ACID, SODIUM SALT/CN
L15 1 SEA "PEROXYMONOSULFURIC ACID, SODIUM SALT"/CN
E PEROXYMONOSULFURIC ACID, POTASSIUM SALT/CN
L16 1 SEA "PEROXYMONOSULFURIC ACID, POTASSIUM SALT"/CN
E PEROXYMONOSULFURIC ACID, MONOSODIUM SALT/CN
L17 1 SEA "PEROXYMONOSULFURIC ACID, MONOSODIUM SALT"/CN
E PEROXYMONOSULFURIC ACID, MONOPOTASSIUM SALT/CN
L18 1 SEA "PEROXYMONOSULFURIC ACID, MONOPOTASSIUM SALT"/CN
E PEROXYMONOSULFURIC ACID, DILITHIUM SALT/CN
E PEROXYMONOSULFURIC ACID, DISODIUM SALT/CN
L19 1 SEA "PEROXYMONOSULFURIC ACID, DISODIUM SALT"/CN
E PEROXYMONOSULFURIC ACID, DIPOTASSIUM SALT/CN
L20 1 SEA "PEROXYMONOSULFURIC ACID, DIPOTASSIUM SALT"/CN
L21 7 SEA (L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20)

FILE 'HCA' ENTERED AT 13:18:04 ON 24 JAN 2006

L22 880 SEA L21
L23 180 SEA (L22 OR L9) AND (L8 OR L13)
L24 52 SEA L23 AND L11
L25 89 SEA L7/D OR L7/DP
L26 4 SEA L24 AND L25
L27 146462 SEA DECONTAMI? OR STERILIZ? OR STERILIS? OR DISINFECT?
OR DECOMMISSION? OR DEWEAPON? OR DEMILITAR?
L28 982305 SEA (MIXT# OR MIXTURE? OR BLEND? OR ADMIX? OR COMMIX? OR
IMMIX? OR INTERMIX? OR COMPOSIT? OR COMPN# OR COMPSN# OR
FORMULAT? OR INTERSPER?)/TI
L29 37 SEA L23 AND L28
L30 41 SEA L23 AND L27
L31 20 SEA L29 AND L30
L32 19 SEA L31 NOT L26
L33 65 SEA (L24 OR L29 OR L30) NOT (L26 OR L32)
L34 92 SEA L23 NOT (L26 OR L32 OR L33)
L35 4 SEA L26 AND (1840-2003/PY OR 1840-2003/PRY)
L36 19 SEA L32 AND (1840-2003/PY OR 1840-2003/PRY)
L37 63 SEA L33 AND (1840-2003/PY OR 1840-2003/PRY)
L38 89 SEA L34 AND (1840-2003/PY OR 1840-2003/PRY)

=> file hca

FILE 'HCA' ENTERED AT 13:42:42 ON 24 JAN 2006

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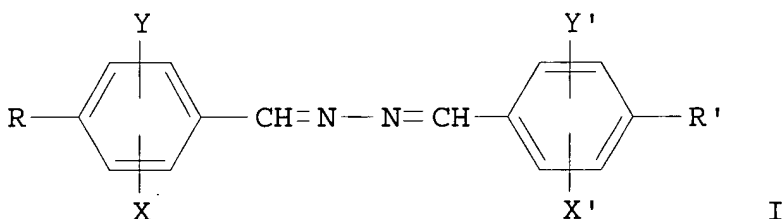
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=> d 135 1-4 cbib abs hitstr hitind

L35 ANSWER 1 OF 4 HCA COPYRIGHT 2006 ACS on STN

135:65920 Method and device for determining monopersulfate. Johnson, Lydia (Lamotte Company, USA). U.S. US 6255117 B1 20010703, 3 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-325792 19990604.

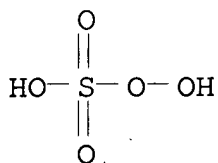
GI



AB A two-step test method and device are described for quant. detg. the presence and concn. of monopersulfate ion in **aq. soln.** The first step consists of contacting a test soln. sample with a reagent compn. deposited on an absorbent matrix material comprising: (a) a chromogenic indicator material selected from the group consisting of a compd. having the formula I, where R and R' are selected from the group consisting of hydroxy and amino groups and X, X', Y and Y' are selected from the group consisting of hydrogen, hydroxy, Me, methoxy, Et and ethoxy groups; (b) a buffer to maintain the test compn. and test soln. sample in a pH range of about from 5 to 7; (c) 0.01 to 0.05 % iodide salt; (d) 0.5 to 1.5% cationic surfactant; and (e) 4 to 6% polymeric bonding agent. The chromogenic indicator can be a heterocyclic azine or benzidine such as syringaldazine, and the iodide salt can be potassium iodide or sodium iodide. The second step consists of comparing the color response obtained to color responses from standardized solns. of monopersulfate salts and translating such comparison to the amt. of

monopersulfate salt in the test soln. The invention has particular utility in maintaining the proper level of sanitizers in swimming pool water.

IT 7722-86-3D, Peroxymonosulfuric acid, **salts** of
 (method and device for detg. presence and concn. of
 monopersulfate ion in **aq. soln.** using
 colorimetric test strips)
 RN 7722-86-3 HCA
 CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 7681-11-0, Potassium iodide, uses 7681-82-5,
 Sodium iodide, uses
 (method and device for detg. presence and concn. of
 monopersulfate ion in **aq. soln.** using
 colorimetric test strips)
 RN 7681-11-0 HCA
 CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)

I-K

RN 7681-82-5 HCA
 CN Sodium iodide (NaI) (9CI) (CA INDEX NAME)

I-Na

IC ICM G01N033-00
 INCL 436119000
 CC 61-3 (Water)
 IT Surfactants
 (cationic; method and device for detg. presence and concn. of
 monopersulfate ion in **aq. soln.** using
 colorimetric test strips)
 IT Redox reaction
 (heterocyclic azine and benzidine types; method and device for
 detg. presence and concn. of monopersulfate ion in **aq.**
soln. using colorimetric test strips)
 IT Buffers
 Colorimetric indicators
 Colorimetry

Paper

Redox indicators

Swimming pools

(method and device for detg. presence and concn. of monopersulfate ion in **aq. soln.** using colorimetric test strips)

IT Absorbents

(natural or synthetic bulbous material; method and device for detg. presence and concn. of monopersulfate ion in **aq. soln.** using colorimetric test strips)

IT 7732-18-5, Water, analysis

(anal. of; method and device for detg. presence and concn. of monopersulfate ion in **aq. soln.** using colorimetric test strips)

IT 7722-86-3D, Peroxymonosulfuric acid, **salts** of

(method and device for detg. presence and concn. of monopersulfate ion in **aq. soln.** using colorimetric test strips)

IT 7681-11-0, Potassium iodide, uses 7681-82-5,

Sodium iodide, uses 14414-32-5, Syringaldazine

(method and device for detg. presence and concn. of monopersulfate ion in **aq. soln.** using colorimetric test strips)

L35 ANSWER 2 OF 4 HCA COPYRIGHT 2006 ACS on STN

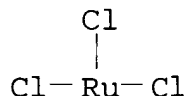
134:85975 Hydroxylation process using ruthenium catalysts for producing adamantanols with enhanced recovery of the ruthenium catalyst. Kakuda, Minoru; Okamoto, Takanobu; Onozawa, Takashi; Kurata, Hiroshi (Mitsubishi Gas Chemical Co., Inc., Japan). Eur. Pat. Appl. EP 1069103 A1 **20010117**, 7 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2000-114017 20000704. PRIORITY: JP 1999-202796 19990716.

AB A process for efficiently sepg. and recovering a ruthenium compd. used as the hydroxylation catalyst in the prodn. of adamantanols is presented. The adamantanols are produced by hydroxylating an adamantane compd. in the presence of a ruthenium compd. and a salt of hypochlorous acid in a two-phase, water-org. solvent system. The hydroxylation product liq. is added with an oxidizing agent to enable the ruthenium compd. to be extd. into the org. phase. The ruthenium compd. is sepd. and recovered from the org. phase. Alternatively, the ruthenium compd. is back-extd. into the aq. phase by adding an **aq. alkali soln.** to the org. phase. Then, the ruthenium compd. is sepd. and recovered from the aq. phase.

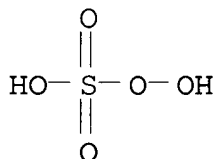
IT 10049-08-8, Ruthenium chloride

(hydroxylation process using ruthenium catalysts for producing adamantanols with enhanced recovery of the ruthenium catalyst)

RN 10049-08-8 HCA
CN Ruthenium chloride (RuCl₃) (6CI, 8CI, 9CI) (CA INDEX NAME)



IT 7722-86-3D, Persulfuric acid, **salts**
(oxidn. agents in a hydroxylation process using ruthenium catalysts for producing adamantanols with enhanced recovery of the ruthenium catalyst)
RN 7722-86-3 HCA
CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C07C029-48
ICS C07C029-88; C07C029-86; C22B011-00
CC 24-8 (Alicyclic Compounds)
Section cross-reference(s): 45, 67
IT 7440-18-8D, Ruthenium, compds., uses 10049-08-8, Ruthenium chloride
(hydroxylation process using ruthenium catalysts for producing adamantanols with enhanced recovery of the ruthenium catalyst)
IT 7722-86-3, Persulfuric acid 7722-86-3D, Persulfuric acid, **salts** 7782-44-7, Oxygen, reactions 7790-92-3D, Hypochlorous acid, salts
(oxidn. agents in a hydroxylation process using ruthenium catalysts for producing adamantanols with enhanced recovery of the ruthenium catalyst)

L35 ANSWER 3 OF 4 HCA COPYRIGHT 2006 ACS on STN
118:87327 Water conditioning agent and/or water germicide without perborate or borate, method for its production and its use. Affonso, Alvaro (Hoelzle und Chelius GmbH, Germany). Eur. Pat. Appl. EP 481269 A2 19920422, 9 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1991-116507 19910927. PRIORITY: DE 1990-4032782 19901016.
AB The perborate- or borate-free water conditioning and disinfection agent comprises (a) an alk. earth salt of peroxomonosulfuric acid and/or .gtoreq.1 alk. earth salt of peroxomonosulfuric acid and (b)

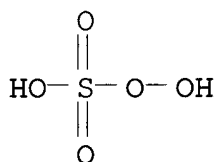
addnl. .gtoreq.1 alkali salt of peroxodisulfuric acid (c) and/or .gtoreq.1 alk. earth hydroxide and/or oxide and/or carbonate, (d) and/or a sulfate or H sulfate chosen from the group of alkali or alk. earth sulfate or H sulfates. The material is solid and stable and can be used to treat wastewater, water, swimming pool water, aquarium water, and waters for cellulose, pulp, or paper processing.

IT 7722-86-3D, Peroxomonosulfuric acid, alk. earth salts
10058-23-8 10361-76-9, Potassium peroxomonosulfate
28831-12-1

(compn. contg., for water conditioning and disinfection)

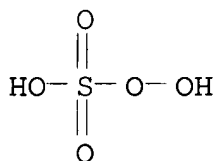
RN 7722-86-3 HCA

CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 10058-23-8 HCA

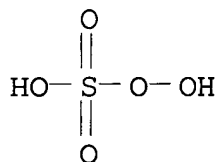
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

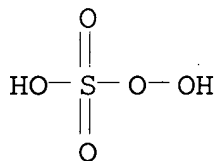
RN 10361-76-9 HCA

CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

RN 28831-12-1 HCA
 CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C02F001-72
 CC 61-5 (Water)
 Section cross-reference(s): 60
 ST peroxomonosulfuric acid **salt water** disinfection
 IT Wastewater treatment
 Water purification
 (conditioning, **compn.** contg. peroxomonosulfuric acid
 salt in)
 IT Wastewater treatment
 Water purification
 (disinfection, **compn.** contg. peroxomonosulfuric acid
 salt in)
 IT 7722-86-3D, Peroxomonosulfuric acid, alk. earth salts
 10058-23-8 10361-76-9, Potassium peroxomonosulfate
 28831-12-1 52900-28-4
 (**compn.** contg., for **water** conditioning and
 disinfection)

L35 ANSWER 4 OF 4 HCA COPYRIGHT 2006 ACS on STN
 105:84901 Mixture of acids and/or acid salts for removing iron and
 manganese deposits and stains. (Multi-Chemie A.-G., Switz.). Eur.
 Pat. Appl. EP 183894 A2 19860611, 8 pp. DESIGNATED

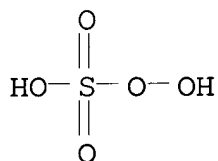
STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE. (German).
 CODEN: EPXXDW. APPLICATION: EP 1985-100725 19850124. PRIORITY: EP
 1984-114594 19841130.

AB Fe- and Mn-contg. deposits and stains are removed from drinking
 water supply plants and wells using a solid or liq. mixt. of org.
 and/or inorg. acids and/or acid salts with an active component of a
 peroxide O-releasing compd. for disinfection-deodorization in the
 form of a chem. compd. or stable adduct and/or a compd. which is not
 considered an impurity for drinking water. The active component,
 e.g., used at 0.5-6, preferably 3-4 wt.% may comprise peroxyborate
 as anion and Na, K, NH₄⁺, Ca, or Mg as cation in the form of a mono-
 to tetrahydrate, Fe(II) as cation with SO₄²⁻ or Cl⁻ as anion, or
 urea perhydrate. Radical-forming agents, e.g., used at 0.1-1,
 preferably 2 wt.%, may be peroxymonosulfates, peroxydisulfates, or
 perchlorates of Na, K, or NH₄⁺. Tensides, inhibitors, and
 detergents may also be included. Thus, the surface of a concrete
 drinking water tank, encrusted with a brownish-black .apprx.0.5-1 mm
 thick layer of Fe oxide hydrate and MnO₂, was sprayed with an
aq. soln. of such a mixt. and in a few seconds the
 coating was discolored and easily washed away.

IT **7722-86-3D**, alkali metal **salts 7758-94-3**
 (in scale removal agents, for drinking water supplies, for
 deodorization and disinfection)

RN 7722-86-3 HCA

CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



RN 7758-94-3 HCA

CN Iron chloride (FeCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl-Fe-Cl

IC ICM C02F001-64

ICS C02F001-72; C02F005-08

CC 61-8 (Water)

IT 57-13-6, biological studies 7601-90-3D, alkali metal salts

7720-78-7 **7722-86-3D**, alkali metal **salts**

7758-94-3 13445-49-3D, alkali metal salts

(in scale removal agents, for drinking water supplies, for
 deodorization and disinfection)

=> d his 139-

FILE 'HCA' ENTERED AT 13:42:42 ON 24 JAN 2006

L39 21 S (L7/D OR L7/DP) (3A) (ALK# OR ALKALI#)
L40 8 S L39 AND (L8 OR L13)
L41 6 S L40 NOT (L35 OR L36 OR L37)
L42 5 S L41 AND (1840-2003/PY OR 1840-2003/PRY)

=> d 142 1-5 ti

L42 ANSWER 1 OF 5 HCA COPYRIGHT 2006 ACS on STN
TI Aqueous well fracturing fluids containing crosslinkable polymeric gelation agents and delayed gel breaking agents

L42 ANSWER 2 OF 5 HCA COPYRIGHT 2006 ACS on STN
TI Persulfate salt-containing brine drill-in fluids for removal of polymer-based filter cakes from petroleum wellbores

L42 ANSWER 3 OF 5 HCA COPYRIGHT 2006 ACS on STN
TI Encapsulations for treating subterranean formations and methods for the use thereof

L42 ANSWER 4 OF 5 HCA COPYRIGHT 2006 ACS on STN
TI Oxidizing mixtures for hair care use

L42 ANSWER 5 OF 5 HCA COPYRIGHT 2006 ACS on STN
TI Inhibition of sulfide inclusion in slag in coal gasification

=> d 142 1,2,3,4 cbib abs hitstr hitind

L42 ANSWER 1 OF 5 HCA COPYRIGHT 2006 ACS on STN
141:159598 Aqueous well fracturing fluids containing crosslinkable polymeric gelation agents and delayed gel breaking agents. Harris, Philip C.; Almond, Stephen W. (Halliburton Energy Services, Inc., USA; Wain, Christopher Paul). PCT Int. Appl. WO 2004067910 A1 20040812, 13 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN:

PIXXD2. APPLICATION: WO 2003-GB5421 20031212. PRIORITY: US
2003-2003/352406 20030128.

AB Aq. fracturing fluids for petroleum wells contain a 0.06-03 wt.% of a viscosity-increasing gelling agent and 0.01-1 wt.% of an inorg. salt clay swelling inhibitor. The base fluid can be fresh water or **salt water** contg. .flag.<3.5 wt.% total dissolved solids. Suitable gelling agents include galactomannan gum (or modified galactomannan gums), cellulose derivs., xanthan gum, succinoglycan biopolymer, guar gum (or derivs.), polyacrylamide (or derivs.), and polyacrylates. The gelling agents are used in the presence of a crosslinking agent based on a borate-releasing compd. or based on polyvalent metal ions, such as titanium, zirconium, antimony, and aluminum ions. Suitable clay swelling inhibitors include potassium chloride, sodium chloride, potassium nitrate, and ammonium chloride. In addn. to added proppant, the fracturing fluid also contains a delayed gel breaker, selected from alkali metal and ammonium persulfates, alkali metal chlorites, alkali metal hypochlorites, and calcium hypochlorite, which are optionally encapsulated in a material that slowly releases the breaker.

IT **7447-40-7**, Potassium chloride, uses **7647-14-5**, Sodium chloride, uses
(clay swelling inhibitor; aq. well fracturing fluids contg. crosslinkable polymeric gelation agents and delayed gel breaking agents)

RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7647-14-5 HCA

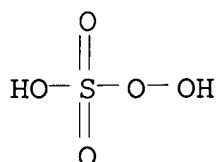
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

IT **7722-86-3D**, Persulfuric acid, **alkali** metal salts
(gel breaking agent; aq. well fracturing fluids contg. crosslinkable polymeric gelation agents and delayed gel breaking agents)

RN 7722-86-3 HCA

CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM E21B043-26
- CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
- IT **7447-40-7**, Potassium chloride, uses **7647-14-5**, Sodium chloride, uses 7757-79-1, Potassium nitrate, uses 12125-02-9, Ammonium chloride, uses (clay swelling inhibitor; aq. well fracturing fluids contg. crosslinkable polymeric gelation agents and delayed gel breaking agents)
- IT **7722-86-3D**, Persulfuric acid, **alkali** metal salts 7778-54-3, Calcium hypochlorite 7790-92-3D, Hypochlorous acid, alkali metal salts 7790-93-4D, Chloric acid, alkali metal salts 13445-49-3D, Persulfuric acid, alkali metal salts (gel breaking agent; aq. well fracturing fluids contg. crosslinkable polymeric gelation agents and delayed gel breaking agents)
- L42 ANSWER 2 OF 5 HCA COPYRIGHT 2006 ACS on STN
- 140:202170 Persulfate salt-containing brine drill-in fluids for removal of polymer-based filter cakes from petroleum wellbores. Hossaini, Mohammad; Murphey, Joe; Carter, Tom S.; McKennis, Jeffrey S. (Tetra Technologies, Inc., USA). U.S. Pat. Appl. Publ. US 2004040706 A1 20040304, 9 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-229984 20020828.
- AB Filter cake with oxidn.-degradable components (preferably polysaccharide-based) in a petroleum wellbore is removed by contacting the filter cake with a variable-d. clear brine drill-in fluid contg. a persulfate salt to degrade the polymers in the filter cake. Suitable brines are NH₄Cl, NH₄Br, **NaCl**, NaBr, CaCl₂, CaBr₂, ZnCl₂, and ZnBr₂, with d. 8.3-12.8 lbs/gal; suitable persulfates are selected from alkali metal persulfates (e.g., K, Na, and Li persulfates), and alk. earth metal persulfates (e.g., Ca and Mg, salts). The filter cakes are deposited from water-sol. or water-dispersible org. polymers, water-sol. or water-dispersible biopolymers,. Filter cake degridn. is carried out at 65-165.degree.F, optionally in the presence of a chelating agent. The filter cake is removed to restore reservoir permeability and to bring the well into productivity.
- IT **7447-40-7**, Potassium chloride, uses **7646-85-7**, Zinc chloride, uses **7647-14-5**, Sodium chloride, uses **7647-15-6**, Sodium bromide, uses **7699-45-8**, Zinc

bromide **10043-52-4**, Calcium chloride, uses
(clear brines; persulfate salt-contg. brine drill-in fluids for
removal of polymer-based filter cakes from petroleum wellbores)

RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7646-85-7 HCA

CN Zinc chloride (ZnCl₂) (9CI) (CA INDEX NAME)

Cl-Zn-Cl

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

RN 7699-45-8 HCA

CN Zinc bromide (ZnBr₂) (9CI) (CA INDEX NAME)

Br-Zn-Br

RN 10043-52-4 HCA

CN Calcium chloride (CaCl₂) (9CI) (CA INDEX NAME)

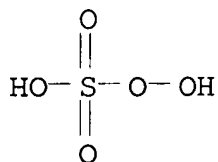
Cl-Ca-Cl

IT **7722-86-3D**, Persulfuric acid, **alkali** and alk.
earth metal salts

(oxidizing agent; persulfate salt-contg. brine drill-in fluids
for removal of polymer-based filter cakes from petroleum
wellbores)

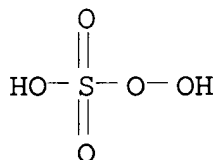
RN 7722-86-3 HCA

CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



- IC ICM E21B021-00
ICS E21B037-08; E21B043-04
- INCL 166278000; 166300000; 166312000; 175064000; 175072000; 507272000;
507276000; 507277000; 507925000
- CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
- IT **7447-40-7**, Potassium chloride, uses **7646-85-7**,
Zinc chloride, uses **7647-14-5**, Sodium chloride, uses
7647-15-6, Sodium bromide, uses **7699-45-8**, Zinc
bromide **10043-52-4**, Calcium chloride, uses 12124-97-9,
Ammonium bromide 12125-02-9, Ammonium chloride, uses
(clear brines; persulfate salt-contg. brine drill-in fluids for
removal of polymer-based filter cakes from petroleum wellbores)
- IT **7722-86-3D**, Persulfuric acid, **alkali** and **alk.**
earth metal salts 7727-21-1, Potassium persulfate 7775-27-1,
Sodium persulfate 13235-16-0, Calcium persulfate 13445-49-3D,
Persulfuric acid, **alkali** and **alk.** earth metal salts 15593-67-6,
Magnesium persulfate 18697-38-6, Lithium persulfate 19787-76-9,
Peroxymonosulfuric acid, ammonium salt
(oxidizing agent; persulfate salt-contg. brine drill-in fluids
for removal of polymer-based filter cakes from petroleum
wellbores)
- L42 ANSWER 3 OF 5 HCA COPYRIGHT 2006 ACS on STN
- 118:216227 Encapsulations for treating subterranean formations and
methods for the use thereof. Satyanarayana, Gupta D. V.; Cooney,
Aiden (Western Co., USA). PCT Int. Appl. WO 9210640 A1
19920625, 38 pp. DESIGNATED STATES: W: HU, NO, RO, SU; RW:
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE. (English).
CODEN: PIXXD2. APPLICATION: WO 1991-US8818 19911203. PRIORITY: US
1990-623013 19901206.
- AB Subterranean formations are fractured by using an aq. compn.
including an encapsulated breaker and polymers, such as guar,
hydroxy alkyl guar, cellulose, hydroxy alkyl cellulose, and xanthan.
The encapsulation membrane is permeable to fluid in the
formation or injected with the breaker such that the breaker
diffuses through the membrane into the fracturing fluid, releasing
controlled amts. of breaker into the fracturing fluid. The breaker
is an alkali or alk. earth metal percarbonate, perchlorate, or
persulfate or ammonium persulfate. The membrane is a polyamide, a
crosslinked ethylene copolymer, or a cellulosic material.

IT 7722-86-3D, Persulfuric acid, **alkali** or alk. earth metal salts
 (breaker fluid, for petroleum formation fracturing, encapsulations for)
 RN 7722-86-3 HCA
 CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 7447-40-7, Potassium chloride, uses
 (fracturing fluid contg., for petroleum formation fracturing, encapsulated breakers in)
 RN 7447-40-7 HCA
 CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

IC ICM E21B043-27
 CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
 IT 563-69-9D, Percarbonic acid, alkali or alk. earth metal salts
 7601-90-3D, Perchloric acid, alkali or alk. earth metal salts
 7722-86-3D, Persulfuric acid, **alkali** or alk. earth metal salts
 7727-21-1, Potassium persulfate
 (breaker fluid, for petroleum formation fracturing, encapsulations for)
 IT 67-63-0, 2-Propanol, uses 1310-73-2, Sodium hydroxide, uses
 7447-40-7, Potassium chloride, uses 9004-34-6, Cellulose,
 uses 39421-75-5D, hydroxy Pr
 (fracturing fluid contg., for petroleum formation fracturing, encapsulated breakers in)

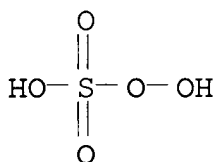
L42 ANSWER 4 OF 5 HCA COPYRIGHT 2006 ACS on STN

115:239322 Oxidizing mixtures for hair care use. Schultz, Thomas M.; Day, Eva (Shiseido Co., Ltd., Japan). U.S. US 5051252 A
 19910924, 8 pp. (English). CODEN: USXXAM. APPLICATION: US
 1990-562611 19900803.

AB By combining an aq. chlorite soln. with an org. or inorg. buffer salt (e.g. tribasic Na citrate) and a divalent metal ion (e.g. as MgCl₂), a stable aq. chlorite soln. is attained for use in substantially improving the durability and resulting visual appearance of permanently waved hair. In addn., the compns. of the invention are equally effective as a post-treatment for freshly

permanently waved hair or as the oxidizer in the permanent waving process. Also, the aq. chlorite soln. can be intermixed with conventional oxidizers to attain the desirable beneficial results. When hair tress samples were treated with the chlorite compns. of the invention (as post-treatment), substantially improved curl retention was obtained, even after 6 sep. cycles of hand shampooing, rinsing, and air drying. Use of the chlorite soln. of the invention as a neutralizer is also described.

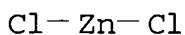
IT 7722-86-3D, Persulfuric acid, **alkali** metal or ammonium salts
(hair preps. contg., for wave setting)
RN 7722-86-3 HCA
CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



IT 7447-39-4, Copper chloride, biological studies
7646-85-7, Zinc chloride, biological studies
7786-30-3, Magnesium chloride, biological studies
(in chlorite compn. for hair wave prepn.)
RN 7447-39-4 HCA
CN Copper chloride (CuCl₂) (8CI, 9CI) (CA INDEX NAME)



RN 7646-85-7 HCA
CN Zinc chloride (ZnCl₂) (9CI) (CA INDEX NAME)



RN 7786-30-3 HCA
CN Magnesium chloride (MgCl₂) (9CI) (CA INDEX NAME)



IC ICM A61K007-09
ICS A61K007-11; A45D007-04
INCL 424071000
CC 62-3 (Essential Oils and Cosmetics)
IT 7722-86-3D, Persulfuric acid, **alkali** metal or

ammonium salts

(hair prepn. contg., for wave setting)

IT 60-00-4D, alkali metal salts 68-04-2 77-92-9D, Citric acid, alkali metal salts 87-69-4D, Tartaric acid, alkali metal salts 123-54-6D, Acetylacetone, alkali metal salts **7447-39-4**, Copper chloride, biological studies 7487-88-9, Magnesium sulfate, biological studies **7646-85-7**, Zinc chloride, biological studies 7733-02-0, Zinc sulfate 7758-98-7, Copper sulfate, biological studies 7779-25-1, Magnesium citrate **7786-30-3**, Magnesium chloride, biological studies 7791-18-6, Magnesium chloride hexahydrate 29604-34-0, Zinc chloride hydrate (in chlorite compn. for hair wave prepn.)

=> d 136 1-19 cbib abs hitstr hitind

L36 ANSWER 1 OF 19 HCA COPYRIGHT 2006 ACS on STN

143:158651 Halogen-enhanced oxidizing **composition**. Martin, Perry L.; Martin, Roy W. (USA). U.S. Pat. Appl. Publ. US 2005155936 A1 20050721, 29 pp., Cont.-in-part of U.S. Ser. No. 953,795. (English). CODEN: USXXCO. APPLICATION: US 2005-80132 20050315. PRIORITY: US 2003-2003/PV49508U 20030813; US 2004-2004/878899 20040628; US 2004-2004/953795 20040928.

AB An improved oxidizing compn. and a method of prepg. it are presented. The improved oxidizing compn. includes a halogen component and a reactive core that generates a desired oxidizing product. The reactive core generates one or more preselected oxidizing products when contacted by a main solvent, and an oxidizing soln. is released. The oxidizing soln. contains the generated oxidizing product(s) and a free halogen from the halogen component. The oxidizing compn. may be used to treat bodies of water such as pool and spa and to bleach materials. Some examples of the halogen component include calcium hypochlorite, trichloroisocyanurate, dichloroisocyanurate, lithium hypochlorite, dibromo-dimethylhydantoin, bromo-chloro-dimethylhydantoin, sodium bromide, sodium chloride, and a combination thereof. Sodium peroxide, lithium peroxide, calcium peroxide, magnesium peroxide, urea peroxide, perphosphate, persilicate, monopersulfate, persulfate, dichloroisocyanurate, trichloroisocyanurate, dibromodimethyl hydantoin, bromochlorodimethyl hydantoin.

IT **7647-14-5**, Sodium chloride, uses **7647-15-6**, Sodium bromide, uses

(as halogen component; halogen-enhanced oxidizing compn. for water **disinfection**)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

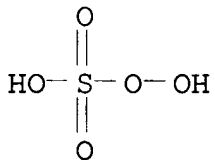
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Cl-Na

RN 7647-15-6 HCA
 CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

IT 10058-23-8
 (as peroxygen compd.; halogen-enhanced oxidizing compn. for water
disinfection)
 RN 10058-23-8 HCA
 CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
 NAME)



● K

IC ICM C02F001-76
 INCL 210754000; 210756000
 CC 61-5 (Water)
 ST halogen enhanced oxidizing compn water **disinfection**
 IT Amines, processes
 (N-halo-amines, oxidizing product; halogen-enhanced oxidizing
 compn. for water **disinfection**)
 IT Acrylic polymers, uses
 Borosilicates
 Polysaccharides, uses
 Polysiloxanes, uses
 (as barrier material; halogen-enhanced oxidizing compn. for water
disinfection)
 IT Chlorites
 (as reactive core; halogen-enhanced oxidizing compn. for water
disinfection)
 IT Polymers, uses
 (co-, carboxylate-sulfonate, as barrier material;
 halogen-enhanced oxidizing compn. for water **disinfection**
)

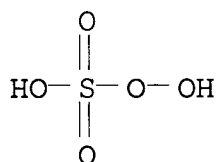
- IT Halogens
(free, as acid source and main solvent; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT Hypohalites
(oxidizing product; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT Group IIIA element compounds
(perborates, as oxidizer; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT Carboxylic acids, processes
(peroxy, oxidizing product; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT Carboxylic acids, uses
(phosphino, as barrier material; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT Water purification
(**sterilization** and **disinfection**;
halogen-enhanced oxidizing compn. for water **disinfection**
)
- IT Polymers, uses
(terpolymers, carboxylate-sulfonate, as barrier material;
halogen-enhanced oxidizing compn. for water **disinfection**
)
- IT 7732-18-5, Water, uses
(as acid source and main solvent; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 1312-76-1, Potassium silicate
(as barrier material and/or oxidizing material; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 144-55-8, Sodium bicarbonate, uses 298-14-6, Potassium bicarbonate
471-34-1, Calcium carbonate, uses 497-19-8, Sodium carbonate, uses
546-93-0, Magnesium carbonate 584-08-7, Potassium carbonate
1305-62-0, Calcium hydroxide, uses 1305-78-8, Calcium oxide, uses
1309-42-8, Magnesium hydroxide 1309-48-4, Magnesium oxide, uses
1310-58-3, Potassium hydroxide, uses 1310-73-2, Sodium hydroxide,
uses 1313-59-3, Sodium oxide, uses 1330-43-4, Sodium borate
1343-88-0, Magnesium silicate 1343-98-2D, Silicic acid, alkyl
derivs. 1344-09-8, Sodium silicate 1344-95-2, Calcium silicate
1398-61-4, Chitin 2090-64-4, Magnesium bicarbonate 3983-19-5,
Calcium bicarbonate 9002-89-5 9003-01-4, Polyacrylic acid
9003-05-8 9004-34-6D, Cellulose, derivs. 9012-76-4, Chitosan
12040-58-3, Calcium borate 12136-45-7, Potassium oxide, uses
12619-64-6, Magnesium borate 12627-14-4, Lithium silicate
12712-38-8, Potassium borate 26099-09-2, Polymaleic acid
(as barrier material; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 77-48-5 87-90-1 2782-57-2, Dichloroisocyanurate 107846-11-7,
Bromo-chloro-dimethylhydantoin

- (as halogen component and/or as oxidizer; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 7647-14-5, Sodium chloride, uses 7647-15-6, Sodium bromide, uses 7778-54-3, Calcium hypochlorite 13840-33-0, Lithium hypochlorite
(as halogen component; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 124-43-6 563-69-9, Carbonoperoxoic acid 1305-79-9, Calcium peroxide 1313-60-6, Sodium peroxide 1343-98-2D, Silicic acid, peroxy- 7664-38-2D, Phosphoric acid, peroxy-, reactions 7722-86-3, Peroxymonosulfuric acid 12031-80-0, Lithium peroxide 14452-57-4, Magnesium peroxide 15092-81-6, Peroxydisulfate ((SO3)2O22-)
(as oxidizer; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 10058-23-8
(as peroxygen compd.; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 7758-19-2, Sodium chlorite 7782-50-5, Chlorine, uses
(halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 3352-57-6, Hydroxyl, processes 10049-04-4, Chlorine dioxide
(oxidizing product; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 157-26-6, Dioxirane
(oxidizing product; halogen-enhanced oxidizing compn. for water **disinfection**)
- IT 7782-44-7, Oxygen, processes
(singlet, oxidizing product; halogen-enhanced oxidizing compn. for water **disinfection**)
- L36 ANSWER 2 OF 19 HCA COPYRIGHT 2006 ACS on STN
142:387518 Universal halide-enhanced **decontaminating compositions** for neutralizing chemical toxicants and providing **disinfection** capability against biological agents. Delcomyn, Carrie; Henley, Michael (USA). U.S. Pat. Appl. Publ. US 2005090419 A1 20050428, 8 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-693194 20031023.
- AB The **decontaminant** compn. comprises .gtoreq.1 oxidant and .gtoreq.1 halide salt and is useful for neutralizing chem. toxicants including organosulfur and organophosphorus-contg. compds., pesticides, herbicides or chem. warfare agents, as well as providing **disinfection** capability against viruses, bacteria, spores, fungi, toxins, and those classified as biol. warfare agents. The overall generation and application of the **decontaminant** soln. creates an unexpected synergistic effect toward rates of detoxification, whereas in most cases where the same oxidants were used individually, the same result would not be achieved.

IT 7647-14-5, Sodium chloride, biological studies
7722-86-3D, Monopersulfuric acid, **salts**
(universal halide-enhanced **decontaminating** compns. for
neutralizing chem. toxicants and providing **disinfection**
capability against biol. agents)
RN 7647-14-5 HCA
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7722-86-3 HCA
CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC ICM C11D003-00
INCL 510372000
CC 4-9 (Toxicology)
ST oxidant halide **decontaminating** compn neutralizing
toxicant; persulfate **decontaminating** compn
disinfection biol agent
IT **Halides**
(**alkali**, alk. or transition metal; universal
halide-enhanced **decontaminating** compns. for
neutralizing chem. toxicants and providing **disinfection**
capability against biol. agents)
IT Toxicants
(chem. and biol.; universal halide-enhanced
decontaminating compns. for neutralizing chem. toxicants
and providing **disinfection** capability against biol.
agents)
IT Organic compounds, processes
(phosphorus-contg.; universal halide-enhanced
decontaminating compns. for neutralizing chem. toxicants
and providing **disinfection** capability against biol.
agents)
IT Organic compounds, processes
(sulfur-contg.; universal halide-enhanced **decontaminating**
compns. for neutralizing chem. toxicants and providing
disinfection capability against biol. agents)
IT Biological warfare agents
Chemical warfare agents

Eubacteria
 Fungi
 Herbicides
 Oxidizing agents
 Pesticides
Seawater
 Spore
 Virus

(universal halide-enhanced **decontaminating** compns. for neutralizing chem. toxicants and providing **disinfection** capability against biol. agents)

IT Toxins

(universal halide-enhanced **decontaminating** compns. for neutralizing chem. toxicants and providing **disinfection** capability against biol. agents)

IT 311-45-5, Paraoxon

(organophosphorus pesticide; universal halide-enhanced **decontaminating** compns. for neutralizing chem. toxicants and providing **disinfection** capability against biol. agents)

IT 79-21-0D, Peracetic acid, salts 157-26-6, Dioxirane 563-69-9D, Carbonoperoxoic acid, salts **7647-14-5**, Sodium chloride, biological studies 7722-84-1, Hydrogen peroxide, biological studies **7722-86-3D**, Monopersulfuric acid, **salts** 37222-66-5, Oxone 39349-73-0, Perborate 74087-85-7, Dimethyldioxirane

(universal halide-enhanced **decontaminating** compns. for neutralizing chem. toxicants and providing **disinfection** capability against biol. agents)

L36 ANSWER 3 OF 19 HCA COPYRIGHT 2006 ACS on STN

142:266210 A **composition** including **potassium**

monopersulfate and halogen sepd. by a barrier film for water treatment in aquatic facilities. Martin, Perry (Materials Technology Laboratories, Inc., USA). PCT Int. Appl. WO 2005019111 A2 20050303, 16 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-US24205 20040726. PRIORITY: US 2003-2003/PV49536U 20030814; US 2004-2004/878899 20040628.

AB A product including a **potassium monopersulfate** component $[(K_2SO_4)_x.cntdot.(KHSO_4)_y.cntdot.(KHSO_5)_z]$, wherein

$x+y+z=1$] and a halogen is presented. The product is useful for treatment of aquatic facilities such as swimming pools. While it was known that using a combination of **potassium monopersulfate** and halogen is effective for sanitizing water, a product that includes both components could not be made because of the incompatibility between the two components. The product overcomes the incompatibility by use of a barrier film between the two components. The barrier film, which includes one or more of inorg. salt, silicate, borosilicate, and org. polymer, is coated onto one of the components prior to being combined with the second component. The product may be extruded and molded into a desired shape and added to the water to be treated, as needed.

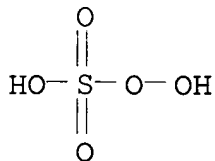
IT 7647-14-5, Sodium chloride, biological studies
 7647-15-6, Sodium bromide, biological studies
 (compn. including **potassium monopersulfate**
 and halogen sepd. by barrier film for water treatment in aquatic
 facilities)
 RN 7647-14-5 HCA
 CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7647-15-6 HCA
 CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

IT 10058-23-8
 (triple salt with potassium sulfate and potassium bisulfate;
 compn. including **potassium monopersulfate** and
 halogen sepd. by barrier film for water treatment in aquatic
 facilities)
 RN 10058-23-8 HCA
 CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
 NAME)



● K

IC ICM C02F
CC 61-5 (Water)
ST water **disinfectant** compn **potassium**
monopersulfate barrier film halogen
IT Clarification
(agents, inclusion of; compn. including **potassium**
monopersulfate and halogen sepd. by barrier film for
water treatment in aquatic facilities)
IT Borosilicates
(barrier film material; compn. including **potassium**
monopersulfate and halogen sepd. by barrier film for
water treatment in aquatic facilities)
IT Films
(barrier; compn. including **potassium**
monopersulfate and halogen sepd. by barrier film for
water treatment in aquatic facilities)
IT Polymers, uses
(co-, carboxylate-sulfonate, barrier film material; compn.
including **potassium monopersulfate** and
halogen sepd. by barrier film for water treatment in aquatic
facilities)
IT Swimming pools
(compn. including **potassium monopersulfate**
and halogen sepd. by barrier film for water treatment in aquatic
facilities)
IT Coating materials
(for coating **potassium monopersulfate** and/or
halogen components; compn. including **potassium**
monopersulfate and halogen sepd. by barrier film for
water treatment in aquatic facilities)
IT Algicides
Buffers
Coagulants
(inclusion of; compn. including **potassium**
monopersulfate and halogen sepd. by barrier film for
water treatment in aquatic facilities)
IT Extrusion, nonbiological
Molding
(of product; compn. including **potassium**
monopersulfate and halogen sepd. by barrier film for
water treatment in aquatic facilities)
IT Carboxylic acids, uses
(phosphino-, barrier film material; compn. including
potassium monopersulfate and halogen sepd. by
barrier film for water treatment in aquatic facilities)
IT Water purification
(**sterilization** and **disinfection**; compn.

- including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT Polymers, uses
(terpolymers, carboxylate-sulfonate, barrier film material; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT Coating process
(to stabilize **potassium monopersulfate** /halogen combination; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT 546-93-0, Magnesium carbonate 1309-42-8, Magnesium hydroxide 1309-48-4, Magnesium oxide, biological studies 2090-64-4, Magnesium bicarbonate
(barrier film material or **potassium monopersulfate** salt component; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT 1305-62-0, Calcium hydroxide, biological studies 1305-78-8, Calcium oxide, biological studies
(barrier film material or, together with MgO, as **potassium monopersulfate** salt component; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT 144-55-8, Sodium bicarbonate, uses 298-14-6, Potassium bicarbonate 471-34-1, Calcium carbonate, uses 497-19-8, Sodium carbonate, uses 584-08-7, Potassium carbonate 1310-58-3, Potassium hydroxide, uses 1310-73-2, Sodium hydroxide, uses 1312-76-1, Potassium silicate 1313-59-3, Sodium oxide, uses 1330-43-4, Sodium borate 1343-88-0, Magnesium silicate 1344-09-8, Sodium silicate 1344-95-2, Calcium silicate 1398-61-4, Chitin 3983-19-5, Calcium bicarbonate 9012-76-4, Chitosan 12040-58-3, Calcium borate 12136-45-7, Potassium oxide, uses 12619-64-6, Magnesium borate 12627-13-3D, Silicate, alkyl derivs. 12627-14-4, Lithium silicate 12712-38-8, Potassium borate 26099-09-2, Polymaleic acid
(barrier film material; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT 77-48-5 87-90-1 2782-57-2, Dichloroisocyanurate 7000-29-5, Calcium magnesium carbonate 7647-14-5, Sodium chloride, biological studies 7647-15-6, Sodium bromide, biological studies 7778-54-3, Calcium hypochlorite 13840-33-0, Lithium hypochlorite 37222-66-5, Potassium peroxymonosulfate sulfate (K5[HSO3(O2)]2(HSO4)(SO4)) 107846-11-7, Bromo-chloro-dimethylhydantoin

(compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)

- IT 7778-80-5, Potassium sulfate, biological studies
(triple salt with **potassium monopersulfate** and **potassium** bisulfate; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT 10058-23-8
(triple salt with potassium sulfate and potassium bisulfate; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)
- IT 7646-93-7, Potassium bisulfate
(triple salt with potassium sulfate and **potassium monopersulfate**; compn. including **potassium monopersulfate** and halogen sepd. by barrier film for water treatment in aquatic facilities)

L36 ANSWER 4 OF 19 HCA COPYRIGHT 2006 ACS on STN
141:175960 **Composite** materials for fluid treatment. Hughes, Kenneth D. (USA). U.S. Pat. Appl. Publ. US 2004149634 A1 20040805, 21 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-359032 20030205.

AB This invention relates generally to composite materials and to devices which may alter fluid parameters. Devices incorporating the composite materials of the invention are used to deliver, remove, and generate, fluid treatment agents, and combinations thereof. These materials and devices are applicable to many different fluid processing situations including drinking water treatment, wastewater treatment, emission treatment, pollution cleanup, and sensing fluid compn. In its more particular aspects, the invention relates to the field of composites that may be widely tailored for many different treatment applications.

- IT 7647-14-5, Sodium chloride, processes 10043-52-4, Calcium chloride, processes 28831-12-1, **Sodium monopersulfate**
(absorption of; composite materials and devices to deliver, remove and generate fluid treatment agents)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

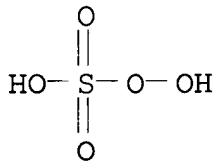
RN 10043-52-4 HCA

CN Calcium chloride (CaCl₂) (9CI) (CA INDEX NAME)

Cl-Ca-Cl

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IT 7783-90-6, Silver chloride, processes
 (composite materials and devices to deliver, remove and generate
 fluid treatment agents)

RN 7783-90-6 HCA

CN Silver chloride (AgCl) (9CI) (CA INDEX NAME)

Ag-Cl

IC ICM B01D035-14

INCL 210096100; 210500100; 210506000

CC 47-10 (Apparatus and Plant Equipment)

Section cross-reference(s): 9, 17, 19, 48, 52, 63

IT Absorbents

Binders

Biocides

Bottles

Chelating agents

Cleaning

Composites

Containers

Cooling

Cyclone separators

Disinfectants

Electrodes

Filters

Flocculants

Fluids

Health products

Heating

Herbicides

Hoses
Insecticides
Ion exchangers
Materials handling
Microorganism
Mixers (processing apparatus)
Odor and Odorous substances
Oxidizing agents
Pesticides
Pumps
Reducing agents
Sensors
Sequestering agents
Spraying apparatus
Surfactants
Water purification
 (composite materials and devices to deliver, remove and generate
 fluid treatment agents)

IT 60-00-4, EDTA, processes 77-92-9, Citric acid, processes
141-43-5, Monoethanolamine, processes 144-55-8, Sodium
bicarbonate, processes 1310-58-3, Potassium hydroxide, processes
1310-73-2, Sodium hydroxide, processes 1336-21-6, Ammonium
hydroxide 7647-01-0, Hydrochloric acid, processes
7647-14-5, Sodium chloride, processes 7664-38-2,
Phosphoric acid, processes 7664-39-3, Hydrofluoric acid, processes
7664-93-9, Sulfuric acid, processes 7722-84-1, Hydrogen peroxide,
processes 7761-88-8, Silver nitrate, processes 10043-35-3, Boric
acid, processes **10043-52-4**, Calcium chloride, processes
25322-68-3 **28831-12-1, Sodium**
monopersulfate
 (absorption of; composite materials and devices to deliver,
 remove and generate fluid treatment agents)

IT 7440-22-4, Silver, processes 7758-19-2, Sodium chlorite
7783-90-6, Silver chloride, processes 10049-04-4, Chlorine
dioxide
 (composite materials and devices to deliver, remove and generate
 fluid treatment agents)

L36 ANSWER 5 OF 19 HCA COPYRIGHT 2006 ACS on STN

140:47580 **Disinfecting composition** in form of
cleaning tablets and use as antimicrobial agent for mouth,
fingernail and toenail care. Wollwage, Peter (Bonyf A.-G.,
Liechtenstein). PCT Int. Appl. WO 2004000372 A2 **20031231**,
17 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB,
BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN,

TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (German). CODEN: PIXXD2. APPLICATION: WO 2003-CH422 20030624. PRIORITY: CH 2002-1079 20020624; CH 2003-509 20030324.

AB Disclosed is a compn. contg. a salt-shaped chloride or bromide compd., at least one oxidant having an oxidizing potential which is higher than that of Cl¹⁻/Cl⁰ or Br¹⁻/Br⁰ in a soln., and at least one excess acid which creates a pH value < 6 when the compn. is fully dissolved. The inventive compn. can be used for **disinfecting** and cleaning objects such as toothbrushes and dentures and body parts such as fingernails and toenails. Preferably, said compn. is used in the form of a self-dissolving cleaning tablet. The compn. is unexpectedly effective in killing germs and can be used to control different bacterial strains and fungi such as Candida albicans.

IT 7647-14-5, Sodium chloride, biological studies
10058-23-8, Potassium hydrogen peroxomonosulfate
(**disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)

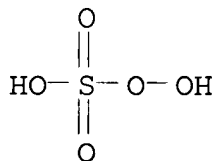
RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl⁻-Na

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IC ICM A61L002-18

ICS A61L002-23; A61K007-30; A61K007-16; A01N059-08

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 62

ST **disinfecting** compn cleaning tablet mouth fingernail toenail antimicrobial agent

- IT Sulfonic acids, biological studies
(alkanesulfonic, salts, C12-C14, sodium salts, diglycolethers;
disinfecting compn. in form of cleaning tablets and use
as antimicrobial agent for mouth, fingernail and toenail care)
- IT Dental materials and appliances
(dentures; **disinfecting** compn. in form of cleaning
tablets and use as antimicrobial agent for mouth, fingernail and
toenail care)
- IT **Disinfectants**
(detergent; **disinfecting** compn. in form of cleaning
tablets and use as antimicrobial agent for mouth, fingernail and
toenail care)
- IT Detergents
(**disinfectant**; **disinfecting** compn. in form of
cleaning tablets and use as antimicrobial agent for mouth,
fingernail and toenail care)
- IT Antibacterial agents
Antiviral agents
Candida albicans
Dyes
Effervescent materials
Flavoring materials
Fungicides
Human
Human herpesvirus
Human herpesvirus 5
Simian foamy virus
Sterilization and Disinfection
Surfactants
(**disinfecting** compn. in form of cleaning tablets and
use as antimicrobial agent for mouth, fingernail and toenail
care)
- IT Bromides, biological studies
Chlorides, biological studies
Peroxides, biological studies
Peroxyulfates
(**disinfecting** compn. in form of cleaning tablets and
use as antimicrobial agent for mouth, fingernail and toenail
care)
- IT Glycols, biological studies
(ethers, sodium-n-alkyl-C12-C14 diglycolether sulfonates;
disinfecting compn. in form of cleaning tablets and use
as antimicrobial agent for mouth, fingernail and toenail care)
- IT Nail (anatomical)
(fungus infection; **disinfecting** compn. in form of
cleaning tablets and use as antimicrobial agent for mouth,
fingernail and toenail care)
- IT Ethers, biological studies

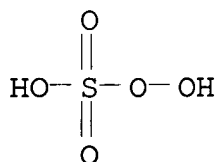
- (glycol, sodium-n-alkyl-C12-C14 diglycolether sulfonates; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT Mouth, disease
(infection; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT Infection
(oral; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT Drug delivery systems
(tablets, effervescent; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT Drug delivery systems
(tablets; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT Foot
Nail (anatomical)
(toenail, fungus infection; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT Brushes
Dental materials and appliances
(toothbrushes; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT Drugs
(veterinary; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)
- IT 77-92-9, Citric acid, biological studies 144-55-8, Sodium bicarbonate, biological studies 151-21-3, Lauryl sulfate sodium salt, biological studies 497-19-8, Sodium carbonate, biological studies 1847-58-1, Sodium lauryl sulfoacetate 7601-54-9, Trisodium phosphate 7647-14-5, Sodium chloride, biological studies 10058-23-8, Potassium hydrogen peroxomonosulfate 26838-05-1, Lauryl disodium sulfosuccinate 36574-66-0D, 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, inner salt, fatty acid derivs.
(**disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for mouth, fingernail and toenail care)

cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts. Wollwage, Peter (Bonyf A.-G., Liechtenstein). PCT Int. Appl. WO 2004000025 A1 20031231, 22 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (German). CODEN: PIXXD2. APPLICATION: WO 2003-CH421 20030624. PRIORITY: CH 2002-1079 20020624; CH 2003-509 20030324.

- AB The invention relates to the use of a compn. contg.: - at least one org. or inorg. compd. or combination of substances, which separates chlorine or bromine in an aq. soln.; and - optionally, a surfactant (tenside) or surface-active mixt. of substances, arom. substances, auxiliary agents, and binding agents. Said compn. is used for **disinfecting** dental objects such as toothbrushes and dentures as well as shaving devices, which are infected with retroviruses, herpes viruses, Pseudomonas aeruginosa, and/or Candida, and body parts that are infected with retroviruses or herpes viruses, Pseudomonas aeruginosa, and/or Candida. Thus a compn. contained (wt./wt.%): potassium hydrogen peroxomonosulfate 5; sodium lauryl sulfate 15; sodium bicarbonate 20; citric acid 30; binding agent 20; sodium chloride 10.
- IT 7647-14-5, Sodium chloride, biological studies
10058-23-8, Potassium hydrogen peroxomonosulfate
(**disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts)
- RN 7647-14-5 HCA
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

- RN 10058-23-8 HCA
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

- IC ICM A01N059-08
- ICS A01N059-00; A61K007-20; A61K033-20; A61L002-16; A61L002-23
- CC 63-6 (Pharmaceuticals)
- Section cross-reference(s): 1, 62
- ST **disinfectant** cleaning tablet antimicrobial agent
- toothbrush denture body
- IT Dental materials and appliances
 - (dentures; **disinfecting** compn. in form of cleaning
 - tablets and use as antimicrobial agent for toothbrushes, razors,
 - dentures and body parts)
- IT **Disinfectants**
 - (detergent; **disinfecting** compn. in form of cleaning
 - tablets and use as antimicrobial agent for toothbrushes, razors,
 - dentures and body parts)
- IT Detergents
 - (**disinfectant; disinfecting** compn. in form of
 - cleaning tablets and use as antimicrobial agent for toothbrushes,
 - razors, dentures and body parts)
- IT Antibacterial agents
- Antimicrobial agents
- Antiviral agents
- Disinfectants**
- Dyes
- Effervescent materials
- Fillers
- Flavoring materials
- Fungicides
- Human
- Human herpesvirus
- Pseudomonas aeruginosa
- Retroviridae
- Sterilization and Disinfection**
- Surfactants
- pH
 - (**disinfecting** compn. in form of cleaning tablets and
 - use as antimicrobial agent for toothbrushes, razors, dentures and

- body parts)
- IT Bromides, biological studies
Chlorides, biological studies
Peroxides, biological studies
Peroxysulfates
(**disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts)
- IT Hand
Nail (anatomical)
(fingernail, fungus infection; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts)
- IT Foot
Nail (anatomical)
(toenail, fungus infection; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts)
- IT Brushes
Dental materials and appliances
(toothbrushes; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts)
- IT Drug delivery systems
(topical; **disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts)
- IT 80-13-7, Halazone 87-90-1, Trichlorocyanuric acid 118-52-5, 1,3-Dichloro-5,5-dimethylhydantoin 127-52-6, Chloramine b 127-65-1, Chloramine T 128-09-6, Succinchlorimide 144-55-8, Sodium bicarbonate, biological studies 473-34-7, Dichloramine T 497-19-8, Sodium carbonate, biological studies 502-98-7, Chloroazodin 2782-57-2, Dichlorocyanuric acid **7647-14-5**, Sodium chloride, biological studies 7673-09-8, Trichloromelamine **10058-23-8**, Potassium hydrogen peroxomonosulfate 26248-98-6, Dichloroglycoluril
(**disinfecting** compn. in form of cleaning tablets and use as antimicrobial agent for toothbrushes, razors, dentures and body parts)
- L36 ANSWER 7 OF 19 HCA COPYRIGHT 2006 ACS on STN
- 138:34678 Sustained-release antimicrobial tablet **compositions** containing peroxysulfates, chlorides, and acids. Nomura, Shuichi (Shikoku Chemicals Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2003002803 A2 **20030108**, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-185818 20010620.
- AB The compns., useful for **sterilization**, deodorization, and slime control of kitchen sinks, toilets, etc., contain
- buffer?*

2KHSO5.KHSO4.K2SO4 (I), chlorides, and org. acids (except for succinic acid). I (Oxon) 10, NaCl 1, benzoic acid 70, and fumaric acid 19 wt.% were mixed to give a tablet, which showed 250 and 60 ppm Cl generation before and after 50% wt. loss by flowing water, resp.

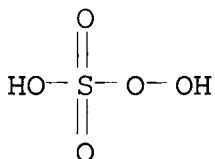
IT 7447-40-7, Potassium chloride, biological studies
 7647-14-5, Sodium chloride, biological studies
 28831-12-1, Oxon
 (sustained-release antimicrobial tablets contg. peroxyulfates, chlorides, and acids)
 RN 7447-40-7 HCA
 CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7647-14-5 HCA
 CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 28831-12-1 HCA
 CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM A01N025-34
 ICS A01N025-08; A01N059-00; A01N059-08; A61L002-16
 CC 5-2 (Agrochemical Bioregulators)
 IT 65-85-0, Benzoic acid, biological studies 69-72-7, Salicylic acid, biological studies 110-17-8, Fumaric acid, biological studies 124-04-9, Adipic acid, biological studies 7447-40-7, Potassium chloride, biological studies 7647-14-5, Sodium chloride, biological studies 28831-12-1, Oxon
 37222-66-5, Potassium peroxyulfate sulfate (2KHSO5.KHSO4.K2SO4) (sustained-release antimicrobial tablets contg. peroxyulfates, chlorides, and acids)

L36 ANSWER 8 OF 19 HCA COPYRIGHT 2006 ACS on STN

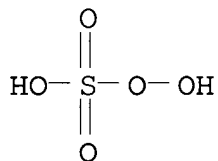
135:308518 Solid **mixtures** of dialkylhydantoins and bromide ion sources for water sanitization. Sanders, Michael J.; Nalepa, Christopher J. (Albemarle Corporation, USA). U.S. US 6303038 B1 **20011016**, 7 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-323348 19990601.

AB A water sol. dialkylhydantoin and a source of bromide ion are added to a body of water needing sanitization. This is followed by contacting the body of water with an oxidizing agent, which creates biocidal species in situ in the body of water. The alkyl groups of the water sol. dialkylhydantoin are the same or different and each alkyl group contains 1 to about 6 carbon atoms.

IT **25482-78-4**
(oxidizing agent; solid mixts. of dialkylhydantoins and bromide ion sources for water sanitization)

RN 25482-78-4 HCA

CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

IT **7647-15-6**, Sodium bromide, biological studies
7699-45-8, Zinc bromide **7758-02-3**, Potassium bromide, biological studies **7789-41-5**, Calcium bromide **7789-48-2**, Magnesium bromide
(solid mixts. of dialkylhydantoins and bromide ion sources for water sanitization)

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 7699-45-8 HCA

CN Zinc bromide (ZnBr₂) (9CI) (CA INDEX NAME)

Br—Zn—Br

RN 7758-02-3 HCA

CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br- K

RN 7789-41-5 HCA

CN Calcium bromide (CaBr₂) (9CI) (CA INDEX NAME)

Br- Ca- Br

RN 7789-48-2 HCA

CN Magnesium bromide (MgBr₂) (9CI) (CA INDEX NAME)

Br- Mg- Br

IC ICM C02F001-72

ICS C02F001-76

INCL 210754000

CC 61-5 (Water)

Section cross-reference(s): 60

IT Swimming pools

(**disinfection** of; solid mixts. of dialkylhydantoins and
bromide ion sources for water sanitization)

IT Wastewater treatment

Water purification

(**disinfection**; solid mixts. of dialkylhydantoins and
bromide ion sources for water sanitization)

IT 87-90-1, Trichloroisocyanuric acid 7681-52-9, Sodium hypochlorite
7778-54-3, Calcium hypochlorite 7782-50-5, Chlorine, biological
studies 7790-92-3, Hypochlorous acid 13840-33-0, Lithium
hypochlorite **25482-78-4**

(oxidizing agent; solid mixts. of dialkylhydantoins and bromide
ion sources for water sanitization)

IT 71-91-0, Tetraethylammonium bromide 77-71-4, 5,5-Dimethylhydantoin
5394-36-5, 5-Ethyl-5-methyl-hydantoin **7647-15-6**, Sodium
bromide, biological studies **7699-45-8**, Zinc bromide
7758-02-3, Potassium bromide, biological studies
7789-41-5, Calcium bromide **7789-48-2**, Magnesium
bromide 12124-97-9, Ammonium bromide 13517-11-8, Hypobromous
acid

(solid mixts. of dialkylhydantoins and bromide ion sources for
water sanitization)

L36 ANSWER 9 OF 19 HCA COPYRIGHT 2006 ACS on STN

131:355889 Balanced water purification **composition**. Rounds,
Rhyta S.; Hsu, Tsui-ling (Advanced Water Technology, Inc., USA).

PCT Int. Appl. WO 9959924 A1 19991125, 36 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.

(English). CODEN: PIXXD2. APPLICATION: WO 1999-US10744 19990514. PRIORITY: US 1998-79269 19980515; US 1998-177632 19981023.

AB A balanced water purifn. compn. is provided with a buffer compd., and oxidizer/clarifier compd., and a biocide compd. disposed in multiple packets such that the biocide compd. and the oxidizer/clarifier compd. are contained in different packets. The compn. purifies and clarifies water while maintaining the existing water pH. The compn. may also include a filtration aid, an algicide, a calcium releasing source, a chelator, and a sequestering agent.

IT 7647-15-6, Sodium bromide, uses 25482-78-4
(balanced water purifn. compn.)

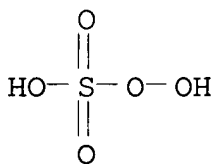
RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 25482-78-4 HCA

CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

IC ICM C02F001-50

CC 61-5 (Water)

IT Water purification

(disinfection; balanced water purifn. compn.)

IT 60-00-4, EDTA, uses 108-80-5D, Isocyanuric acid, chloro derivs
139-33-3, EDTA, di sodium salt 144-55-8, Sodium bi carbonate, uses
497-19-8, Sodium carbonate, uses 7553-56-2, Iodine, uses
7647-15-6, Sodium bromide, uses 7681-38-1, Sodium bi

sulfate 7726-95-6, Bromine, uses 7758-98-7, Copper sulfate, uses 7775-27-1, Sodium persulfate 7782-50-5, Chlorine, uses 10043-01-3, Aluminum sulfate 10402-15-0, Copper citrate 12125-02-9, Ammonium chloride ((NH₄)Cl), uses 16079-88-2
25482-78-4 28629-88-1 69824-08-4, Baquacil 85297-52-5
 (balanced water purifn. compn.)

L36 ANSWER 10 OF 19 HCA COPYRIGHT 2006 ACS on STN

130:184128 Solid cleaning **compositions** with good bleaching and **disinfecting** properties for rigid surfaces. Yamazaki, Yoshihiro; Honda, Yoshihiro; Okano, Tetsuya; Matsuo, Noboru; Moriyama, Tadashi (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 11035987 A2 **19990209** Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-200136 19970725.

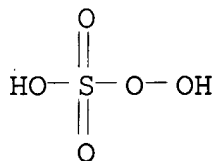
AB Title compns. contain (a) Na percarbonate, K percarbonate, Na perborate, K perborate, KHSO₅, NaHSO₅, and/or Na₂SO₄-NaCl-H₂O₂ adduct, (b) cationic **disinfectants**, and (c) blowing agents composed of carbonates or bicarbonates and solid acids. The compns. may further contain (d) chelating agents, (e) nonionic surfactants, anionic surfactants, cationic surfactants, and/or amphoteric surfactants, and/or (f) silicates and/or sulfates. Thus, a compn. comprising Na percarbonate 30, didecyldimethylammonium chloride 5, NaHCO₃ 10, succinic acid 10, and NaCO₃ 45 parts showed good detergency.

IT **25482-78-4 28831-12-1, Sodium monopersulfate**

(solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)

RN 25482-78-4 HCA

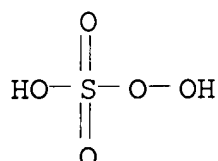
CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

- IC ICM C11D003-48
ICS A01N025-08; A01N025-10; A01N025-14; A01N033-12; A01N047-44;
C11D003-04
- CC 46-6 (Surface Active Agents and Detergents)
- ST **disinfecting** bleaching detergent sodium percarbonate;
didecyldimethylammonium chloride cationic **disinfectant**
detergent; bicarbonate succinic acid blowing agent detergent
- IT Polyoxyalkylenes, uses
(alkyl ethers, surfactants; solid cleaning compns. contg. inorg.
peroxides, cationic **disinfectants**, and blowing agents
for rigid surfaces)
- IT Surfactants
(amphoteric; solid cleaning compns. contg. inorg. peroxides,
cationic **disinfectants**, and blowing agents for rigid
surfaces)
- IT Surfactants
(anionic; solid cleaning compns. contg. inorg. peroxides,
cationic **disinfectants**, and blowing agents for rigid
surfaces)
- IT Surfactants
(cationic; solid cleaning compns. contg. inorg. peroxides,
cationic **disinfectants**, and blowing agents for rigid
surfaces)
- IT Surfactants
(nonionic; solid cleaning compns. contg. inorg. peroxides,
cationic **disinfectants**, and blowing agents for rigid
surfaces)
- IT Acids, uses
(oxo, blowing agents; solid cleaning compns. contg. inorg.
peroxides, cationic **disinfectants**, and blowing agents
for rigid surfaces)
- IT Bleaching agents
Blowing agents
Chelating agents
Detergents
Disinfectants

- (solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)
- IT Amine oxides
(surfactants; solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)
- IT 50-21-5, uses 50-81-7, Ascorbic acid, uses 56-84-8, L-Aspartic acid, uses 56-86-0, L-Glutamic acid, uses 65-85-0, Benzoic acid, uses 77-92-9, Citric acid, uses 87-69-4, uses 98-79-3 110-15-6, Butanedioic acid, uses 110-16-7, 2-Butenedioic acid (2Z)-, uses 110-17-8, 2-Butenedioic acid (2E)-, uses 110-94-1, Glutaric acid 124-04-9, Hexanedioic acid, uses 141-82-2, Malonic acid, uses 144-55-8, Sodium bicarbonate, uses 298-14-6, Potassium bicarbonate 471-34-1, Calcium carbonate, uses 506-87-6, Ammonium carbonate 526-95-4, D-Gluconic acid 546-93-0, Magnesium carbonate 584-08-7 994-36-5, Sodium citrate 1066-33-7, Ammonium bicarbonate 6915-15-7, Malic acid
(blowing agents; solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)
- IT 60-00-4, Ethylenediaminetetraacetic acid, uses 64-02-8, Tetrasodium ethylenediaminetetraacetate 67-42-5 67-43-6, Diethylenetriaminepentaacetic acid 139-13-9, Nitrilotriacetic acid 142-73-4, Iminodiacetic acid 150-39-0, Hydroxyethylethylenediaminetriacetic acid 869-52-3, Triethylenetetraminehexaacetic acid 1343-98-2, Silicic acid 7372-13-6, N-(o-Hydroxybenzyl)iminodiacetic acid 9003-01-4, Polyacrylic acid 10380-08-2, Tripolyphosphoric acid 13598-36-2D, Phosphonic acid, salts 89298-81-7, Isoamylene-maleic acid copolymer
(chelating agents; solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)
- IT 112-00-5, Quartamin 24P 121-54-0 122-19-0, Stearylbenzyltrimethylammonium chloride 139-07-1, Laurylbenzyltrimethylammonium chloride 7173-51-5, Didecyltrimethylammonium chloride
(**disinfectants**; solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)
- IT 497-19-8, Carbonic acid disodium salt, uses 1312-76-1, Potassium silicate 1343-88-0, Magnesium silicate 1344-09-8, Sodium silicate 1344-95-2, Calcium silicate 7487-88-9, Magnesium sulfate, uses 7757-82-6, Sodium sulfate, uses 7778-18-9, Calcium sulfate 7778-80-5, Potassium sulfate, uses 7783-20-2, Ammonium sulfate, uses 11138-47-9, Sodium perborate 12653-78-0, Potassium perborate 15630-89-4, Sodium percarbonate 25482-78-4 28831-12-1, Sodium monopersulfate

36411-33-3 220572-78-1

(solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)

IT 1643-20-5, Amphitol 20N 9002-92-0 25322-68-3D, alkyl ethers (surfactants; solid cleaning compns. contg. inorg. peroxides, cationic **disinfectants**, and blowing agents for rigid surfaces)

L36 ANSWER 11 OF 19 HCA COPYRIGHT 2006 ACS on STN

130:143982 Cleaning, **disinfectant**, and deodorant

compositions containing pyroligneous acids, etc.. Kawai, Takakyoshi (Japan). Jpn. Kokai Tokkyo Koho JP 11029423 A2 19990202 Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-202569 19970711.

AB The compns. are prepd. by adding 0.01-5% microbicide selected from **NaCl**, K₂S₂O₈, cationic surfactants, and plant enzymes to 1-300-fold dilns. of .gtoreq.1 deodorant component selected from broad-leaved tree pyroligneous acids coniferous pyroligneous acids, and humus soil exts. The compns. are used by spraying over objects generating malodor, e.g. garbage box, toilet, etc., or by wiping the objects with a cloth impregnated with the compns. Malodor of spoiled onion was completely eliminated by a spray contg. of broad-leaved tree pyroligneous acids, coniferous pyroligneous acids, and humus soil exts. The spray addnl. contg. an aq. **NaCl** soln. showed antibacterial and antifungal effect.

IT 7647-14-5, Sodium chloride, biological studies

10361-76-9, Potassium peroxomonosulfate

(cleaning, **disinfectant**, and deodorant compns. contg.

pyroligneous acids or humus soil exts. and antimicrobial agents)

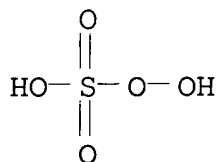
RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 10361-76-9 HCA

CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

- IC ICM A01N059-00
- ICS A01N059-00; A01N065-00; A61L009-01; C11D007-44; C11D017-08
- CC 62-5 (Essential Oils and Cosmetics)
- ST deodorant **disinfectant** broadleaf coniferous pyroligneous acid; sodium chloride pyroligneous acid deodorant **disinfectant**; potassium peroxomonosulfate pyroligneous acid deodorant **disinfectant**; cationic surfactant pyroligneous acid deodorant **disinfectant**; plant enzyme pyroligneous acid deodorant **disinfectant**
- IT Surfactants
 - (cationic; cleaning, **disinfectant**, and deodorant compns. contg. pyroligneous acids or humus soil exts. and antimicrobial agents)
- IT Air fresheners
 - Deodorants
 - Detergents
 - (cleaning, **disinfectant**, and deodorant compns. contg. pyroligneous acids or humus soil exts. and antimicrobial agents)
- IT Pyroligneous acids
 - (cleaning, **disinfectant**, and deodorant compns. contg. pyroligneous acids or humus soil exts. and antimicrobial agents)
- IT Plant (Embryophyta)
 - (enzymes derived from; cleaning, **disinfectant**, and deodorant compns. contg. pyroligneous acids or humus soil exts. and antimicrobial agents)
- IT Humus
 - (exts.; cleaning, **disinfectant**, and deodorant compns. contg. pyroligneous acids or humus soil exts. and antimicrobial agents)
- IT Antibacterial agents
 - Fungicides
 - (industrial; cleaning, **disinfectant**, and deodorant compns. contg. pyroligneous acids or humus soil exts. and antimicrobial agents)
- IT Enzymes, biological studies
 - (plant-derived; cleaning, **disinfectant**, and deodorant

compns. contg. pyroligneous acids or humus soil exts. and antimicrobial agents)

IT 7647-14-5, Sodium chloride, biological studies

10361-76-9, Potassium peroxomonosulfate

(cleaning, **disinfectant**, and deodorant compns. contg.

pyroligneous acids or humus soil exts. and antimicrobial agents)

L36 ANSWER 12 OF 19 HCA COPYRIGHT 2006 ACS on STN

117:258238 **Compositions** and methods to clean contact lenses.

Dziabo, Anthony J., Jr.; Karageozian, Hamper; Ripley, Paul S.; Lam, Sam W.; Espiritu, J. Abraham (Allergan, Inc., USA). PCT Int. Appl.

WO 9215334 A1 19920917, 57 pp. DESIGNATED STATES: W: AU,

BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MG, MW, NO, RO, RU, SD; RW:

AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GR, IT,

LU, MC, ML, MR, NL, SE, SN, TD, TG. (English). CODEN: PIXXD2.

APPLICATION: WO 1992-US1589 19920226. PRIORITY: US 1991-664601

19910304.

AB A compn. for cleaning contact lenses comprises .gtoreq.1 enzyme capable of removing debris from a contact lens and .gtoreq.1

disinfectant, which is incompatible with .gtoreq.1 enzyme.

The compn. is structured so that .gtoreq.1 enzyme is released in a liq. medium contg. the contact lens **disinfectant** at

substantially the same time or after the **disinfectant**

destroying component is released in the liq. medium, thereby

allowing the enzyme to remove debris from the contact lens. A lens **disinfecting** system was prepd. comprising a soln. contg.

NaCl 0.85, boric acid 0.10, and stabilized ClO₂ (prepn. is

given) 0.005%; an activator tablet contg. tartaric acid (I) 27.0 mg,

anhyd. Na₂CO₃ (II) 10.0, sugar-based binder/filler 40.6, and PEG 2.4

mg; a neutralizer tablet contg. I 3.0, II 21.0, the binder/filler

23.3, PEG 1.5, and N-acetylcysteine 1.2 mg. The activator tablet is

placed in the soln. to release ClO₂ which **disinfect** soft

contact lens in 1-2 min followed by dissoln. of neutralizer tablet

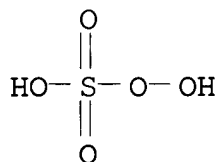
to raise the pH to comfortable level and consume ClO₂.

IT 10361-76-9, Potassium peroxymonosulfate

(contact lens cleaning system contg.)

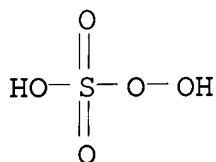
RN 10361-76-9 HCA

CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

- IC ICM A61L002-00
ICS A01N059-00
- CC 63-6 (Pharmaceuticals)
- ST contact lens **disinfectant** chlorine dioxide; enzyme contact lens cleaning soln
- IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic acid, esters, polymers 616-91-1, N-Acetylcysteine 9000-92-4, Amylase 9001-62-1, Lipase 9001-92-7, Protease 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvinylpyrrolidone 9004-34-6D, Cellulose, ethers and esters 9004-65-3 9011-16-9 9014-01-1, Subtilisin 10049-04-4, Chlorine dioxide **10361-76-9**, Potassium peroxymonosulfate 25086-15-1, Eudragit l 100 (contact lens cleaning system contg.)
- L36 ANSWER 13 OF 19 HCA COPYRIGHT 2006 ACS on STN
- 117:118559 A **composition** for **disinfection** and cleansing of contact lenses. Bayer, Thomas; Saccani, Renato (Carl Zeiss S.p.A., Italy). Eur. Pat. Appl. EP 487994 A1 **19920603**, 5 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1991-119506 19911115. PRIORITY: IT 1990-22242 19901129.
- AB Tablets for the **disinfection** and cleansing of contact lenses to be dissolved in an aq. vehicle contain O-releasing compds. (50-500 mg) and microencapsulated metal ions (5-800 .mu.g) for subsequent decompn. of O-releasing compds. Metal ions are released 2-4 h after tablet dissoln., a time necessary to accomplish the complete **disinfection** and cleansing of contact lenses. A tablet contained Na peroxybenzoate 50, AgOAc 0.1, NaOAc 10, citric acid 10, NaCl 70, PVP 20, cutin 1, and PEG 2 mg.
- IT **10361-76-9**, Potassium peroxymonosulfate (contact lens **disinfecting** tablets contg.)
- RN 10361-76-9 HCA
- CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

- IC ICM A61L002-18
ICS G02C013-00
- CC 63-7 (Pharmaceuticals)
- ST contact lens **disinfection** tablet peroxybenzoate
- IT Cations
(contact lens **disinfecting** tablets contg. peroxy
comps. and)
- IT **Sterilization and Disinfection**
(of contact lenses, tablets contg. peroxy comps. and metal ions
for)
- IT Bactericides, **Disinfectants**, and Antiseptics
(peroxy comps. as, tablets contg., for contact lenses)
- IT Lenses
(contact, **disinfection** and cleansing of, tablets contg.
peroxy comps. for)
- IT 6153-09-9, Sodium peroxybenzoate 7727-21-1, Potassium
peroxydisulfate 7727-54-0, Ammonium peroxydisulfate 7778-74-7,
Potassium perchlorate **10361-76-9**, Potassium
peroxymonosulfate 98701-65-6 143188-20-9
(contact lens **disinfecting** tablets contg.)
- IT 563-63-3, Silver acetate 6147-53-1 7439-96-5, Manganese,
biological studies 7440-22-4, Silver, biological studies
7440-47-3, Chromium, biological studies 7440-48-4, Cobalt,
biological studies 7761-88-8, Silver nitrate, biological studies
7785-87-7, Manganese sulfate
(contact lens **disinfecting** tablets contg. peroxy
comps. and)
- IT 9003-39-8 9004-62-0, Hydroxyethyl cellulose
(contact lens **disinfecting** tablets contg. peroxy
comps. and metal ions and)

L36 ANSWER 14 OF 19 HCA COPYRIGHT 2006 ACS on STN

110:237195 Bromide-containing **composition** for

disinfecting bathtubs and water pipes. Cummerson, David
Ashton; Baldry, Michael Gordon Charles; Lapham, David John; Revell,
Christopher (Laporte Industries Ltd., UK). Eur. Pat. Appl. EP

265709 A2 **19880504**, 7 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1987-114410 19871002. PRIORITY: GB 1986-25607 19861025.

- AB Bathtubs and their assocd. pipework, particularly spa baths, can be sanitized by the use of a compn. comprising an alkali metal monopersulfate, an alkali **metal bromide** and a suitable quantity of an acid or weak base to give a treatment pH of 3-8.5, preferably 6-8. Spa baths may be treated by dissolving the compn. in water in the bath at >30.degree. and operating the spa mechanism to circulate the water through the pipework from 2 to 20 min. A good kill of a broad range of organisms may be obtained. Exposure of water for 5 min to a compn. contg. **K monopersulfate** 80.8, NaBr 30.3, NaHCO₃ 57.2 and Na laurylsulfate 1.7 mg/L, killed Escherichia coli, Staphylococcus aureus, Pseudomonas aeruginosa and Streptococcus faecalis.
- IT **7647-15-6**, Sodium bromide, biological studies
(**disinfectant** contg. alkali metal monopersulfate and, for bathtubs)
- RN 7647-15-6 HCA
- CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

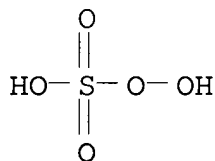
- IC ICM A01N059-08
ICS A61L011-00
- ICI A01N059-08, A01N059-02
- CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 5, 10
- ST bathtub **disinfectant** potassium persulfate bromide
- IT Toilets
(**disinfectants** for, alkali **metal bromide-** and alkali metal monopersulfate-contg.)
- IT Bactericides, **Disinfectants**, and Antiseptics
(for bathtubs, alkali **metal bromide-** and alkali metal monopersulfate-contg.)
- IT Household furnishings
(bathtubs, **disinfectants** for, alkali **metal bromide-** and alkali metal monopersulfate-contg.)
- IT 37222-66-5
(**disinfectant** contg. alkali **metal bromide** and, for bathtubs)
- IT **7647-15-6**, Sodium bromide, biological studies
(**disinfectant** contg. alkali metal monopersulfate and, for bathtubs)

Auchincloss, Thomas Ralph (UK). Brit. UK Pat. Appl. GB 2164851 A1
19860403, 15 pp. (English). CODEN: BAXXDU. APPLICATION:
 GB 1985-22927 19850917. PRIORITY: GB 1984-24763 19841001.

- AB A bactericidal and virucidal compn. contains an inorg. halide plus
 oxidizing agent (to yield hypohalite ions in aq. soln.), sulfamic
 acid, a nonreducing acid, an anhyd. inorg. acid phosphate salt, and
 optionally a surfactant. Thus, VIRKON, a compn. contg. persulfate
 (KHSO₅/KHSO₄/K₂SO₄; 2:1:1) 50, **NaCl** 15, sulfamic acid 5,
 malic acid 10, Na₂H₂P₂O₇ 5, and anionic surfactant 15 parts by wt.,
 was most active among several compns. tested against foot and mouth,
 fowl pest, and swine vesicular disease viruses.
- IT **7647-14-5**, biological studies **10058-23-8**
 (bactericide-virucide compn. contg.)
- RN 7647-14-5 HCA
- CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

- RN 10058-23-8 HCA
- CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
 NAME)



● K

- IC ICM A01N025-00
- CC 63-6 (Pharmaceuticals)
- IT Bactericides, **Disinfectants**, and Antiseptics
 Virucides and Virustats
 (hypohalite-producing compns.)
- IT 110-15-6, biological studies 5329-14-6 6915-15-7 7646-93-7
7647-14-5, biological studies 7758-16-9 7778-80-5,
 biological studies **10058-23-8** 14380-61-1 15092-81-6
 (bactericide-virucide compn. contg.)

L36 ANSWER 16 OF 19 HCA COPYRIGHT 2006 ACS on STN
 96:183228 Improvements in sanitizing **compositions**. (Antec AH
 International Ltd., UK). Brit. UK Pat. Appl. GB 2078522 A
19820113, 3 pp. (English). CODEN: BAXXDU. APPLICATION: GB

1981-19667 19810625. PRIORITY: GB 1980-20965 19800626.

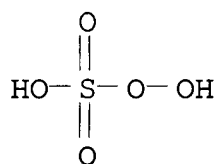
AB Powd. sanitizing compns. for cleaning toilet bowls, dairy app., etc., contain a hypochlorite source [i.e., $\text{Ca}(\text{OCl})_2$, Dichloramine-T [473-34-7], or a **NaCl**-Na persulfate mixt.], a surfactant, $\text{H}_2\text{NSO}_3\text{H}$, and, in some cases, malic acid [6915-15-7] or succinic acid [110-15-6]. The compns. give cleaning solns. with a low pH, improving the biocidal activity of the hypochlorite and the sanitizing effect on surfaces coated with lime scale or milk stone. Thus, a sanitizing compn. contained $\text{Ca}(\text{OCl})_2$ 30, Na_2SO_4 40, malic acid 20, $\text{H}_2\text{NSO}_3\text{H}$ 5, and Na dodecylbenzenesulfonate 5%.

IT 15593-29-0

(cleaning and **disinfecting** compns. contg. sodium chloride and, acid-contg.)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IT 7647-14-5, uses and miscellaneous

(cleaning and **disinfecting** compns. contg. sodium persulfate and, acid-contg.)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

IC A01N025-08; A01N025-02

CC 46-6 (Surface Active Agents and Detergents)

ST hypochlorite acid cleaner **disinfectant**; sulfamic hypochlorite cleaner **disinfectant**; toilet cleaner hypochlorite acid; dairy cleaner hypochlorite acid

IT Detergents

(cleaning compns., **disinfecting**, contg. acids and hypochlorite)

IT 473-34-7 7778-54-3

(cleaning and **disinfecting** compns. contg. acid and)

IT 110-15-6, uses and miscellaneous 5329-14-6 6915-15-7

(cleaning and **disinfecting** compns. contg. hypochlorite)

and)

IT 15593-29-0

(cleaning and **disinfecting** compns. contg. sodium chloride and, acid-contg.)

IT 7647-14-5, uses and miscellaneous

(cleaning and **disinfecting** compns. contg. sodium persulfate and, acid-contg.)

L36 ANSWER 17 OF 19 HCA COPYRIGHT 2006 ACS on STN

77:92859 **Sterilizing composition** comprising

potassium monopersulfate and **sodium**

chloride coated with an edible oil and magnesium stearate. Levy, Alan A.; Rodger, Mitchell N.; Breach, Geoffrey D.

(Richardson-Merrell Inc.). U.S. US 3671629 **19720620**, 3

pp. (English). CODEN: USXXAM. APPLICATION: US 1968-705940

19680216. PRIORITY: GB 1967-8308 19670221.

AB The title compn. is useful for **sterilizing** infants feeding bottles or as the base of a mouthwash compn. Coating the solid particles with nonaq. liq. and a solid antistatic lubricant ensures uniformity of compn. when the mixt. is fed into small packages from bulk.

IT 7647-14-5, biological studies

(**sterilization** by **potassium monopersulfate** and)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

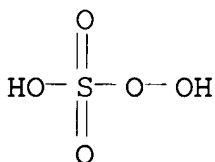
Cl-Na

IT 25482-78-4

(**sterilization** by sodium chloride and)

RN 25482-78-4 HCA

CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

IC A01N

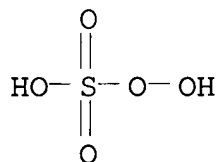
INCL 424153000

CC 63-6 (Pharmaceuticals)
ST **sterilizing** compn persulfate
IT **Sterilization and Disinfection**
(by **potassium monopersulfate** and
sodium chloride)
IT Bottles
(for infant food, **potassium monopersulfate**
and **sodium chloride** for **sterilization** of)
IT Mouthwashes
(**potassium monopersulfate** and **sodium**
chloride)
IT 7647-14-5, biological studies
(**sterilization** by **potassium**
monopersulfate and)
IT 25482-78-4
(**sterilization** by sodium chloride and)

L36 ANSWER 18 OF 19 HCA COPYRIGHT 2006 ACS on STN
72:24611 Solid **sterilizing compositions** containing
potassium monopersulfate and **sodium**
chloride. (Vick International Ltd.). Fr. FR 1568919
19690530, 4 pp. (French). CODEN: FRXXAK. APPLICATION: FR
1968-1568919 19680220.
AB A stable, solid **sterilizing** compn. with extended
bactericidal effect against *Escherichia coli*, *Aerobacter aerogenes*,
Micrococcus pyrogenes, *Pseudomonas aeruginosa*, and *Candida albicans*
was prepd. from KHS208 11, **NaCl** 83,966, **NaHCO3** 5, **Mg**
stearate 0.004, and corn oil 0.03%. The compn. is used as an aq.
soln.
IT 7647-14-5, biological studies 10058-23-8
(bactericidal prepn.)
RN 7647-14-5 HCA
CN Sodium chloride (**NaCl**) (9CI) (CA INDEX NAME)

Cl-Na

RN 10058-23-8 HCA
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
NAME)



● K

IC A61L
CC 63 (Pharmaceuticals)
ST bactericidal compn; **sterilizing** compn; **potassium**
monopersulfate; persulfate K
IT 7647-14-5, biological studies 10058-23-8
(bactericidal prepn.)

L36 ANSWER 19 OF 19 HCA COPYRIGHT 2006 ACS on STN

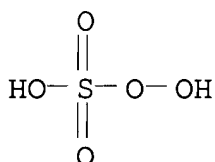
71:126341 Bactericidal detergent **composition**. Levy, Alan A.;
Breach, Geoffrey D. (Richardson-Merrell Ltd.). Brit. GB 1162754
19690827, 5 pp. (English). CODEN: BRXXAA. APPLICATION: GB
19670221.

AB A dry compn. for diln. in H2O useful for cleaning and
disinfecting diapers by immersion at room temp. for 24 hrs.
comprises **K monopersulfate** (I) 16, **NaCl**
36.5, Na tripolyphosphate 30, Na2CO3 8.85, fluorescent whitener 0.1,
Na dodecylbenzene-sulfonate (80% active material, 20% Na2SO4) 8, and
light liq. paraffin 0.5 part. The I is crude material contg. 45%
active salt.

IT 10058-23-8
(bactericidal detergents contg.)

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
NAME)



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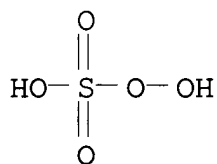
IC A61L
 CC 46 (Surface Active Agents and Detergents)
 ST bactericidal detergents; detergents bactericidal; diapers cleaning
disinfecting compns
 IT 10058-23-8
 (bactericidal detergents contg.)

=> d 137 1-63 cbib abs hitstr hitind

L37 ANSWER 1 OF 63 HCA COPYRIGHT 2006 ACS on STN
 143:168089 Water soluble **potassium monopersulfate**
 powder **disinfectant**. Mo, Yun (Shaoshan Dabeinong Animal
 Medicine Co., Ltd., Peop. Rep. China). Faming Zhuanli Shenqing
 Gongkai Shuomingshu CN 1545883 A 20041117, No pp. given (Chinese).
 CODEN: CNXXEV. APPLICATION: CN 2010-110649 20031215.
 AB The invention relates to a water sol. **potassium**
monopersulfate powd. **disinfecting** agent comprising
sodium chloride, **potassium monopersulfate**
 , sulfamic acid, malic acid, lemon acid, sodium hexametaphosphate,
 sodium dodecanesulfonate and sodium silicate by wt. percentage.
 IT 7647-14-5, Sodium chloride, biological studies
 10058-23-8
 (water sol. **potassium monopersulfate** powder
disinfectant)
 RN 7647-14-5 HCA
 CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 10058-23-8 HCA
 CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
 NAME)



● K

IC ICM A01N059-02
 CC 5-2 (Agrochemical Bioregulators)

ST **potassium monopersulfate** water soluble
disinfectant
IT Polyphosphoric acids
(sodium salts; water sol. **potassium**
monopersulfate powder **disinfectant**)
IT **Disinfectants**
(water sol. **potassium monopersulfate** powder
disinfectant)
IT 1344-09-8, Sodium silicate 2386-53-0, Sodium dodecanesulfonate
5329-14-6, Sulfamic acid 6915-15-7, Malic acid **7647-14-5**
, Sodium chloride, biological studies **10058-23-8**
216973-84-1, Lemon acid
(water sol. **potassium monopersulfate** powder
disinfectant)

L37 ANSWER 2 OF 63 HCA COPYRIGHT 2006 ACS on STN
142:254568 Methods and **compositions** for increasing the
efficacy of biologically-active ingredients such as antitumor
agents. Windsor, J. Brian; Roux, Stan J.; Lloyd, Alan M.; Thomas,
Collin E. (Board of Regents, the University of Texas System, USA).
PCT Int. Appl. WO 2005014777 A2 20050217, 243 pp. DESIGNATED
STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ,
CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU,
MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN:
PIXXD2. APPLICATION: WO 2003-US32667 20031016. PRIORITY: US
2002-2002/PV418803 20021016.

AB The invention provides methods and compns. for modulating the
sensitivity of cells to cytotoxic compds. and other active agents.
In accordance with the invention, compns. are provided comprising
combinations of ectophosphatase inhibitors and active agents.
Active agents include antibiotics, fungicides, herbicides,
insecticides, chemotherapeutic agents, and plant growth regulators.
By increasing the efficacy of active agents, the invention allows
use of compns. with lowered concns. of active ingredients.

IT **1344-67-8**, Copper chloride **7446-70-0**, Aluminum
chloride (AlCl₃), biological studies **7447-40-7**, Potassium
chloride (KCl), biological studies **7447-41-8**, Lithium
chloride (LiCl), biological studies **7487-94-7**, Mercury
chloride (HgCl₂), biological studies **7646-85-7**, Zinc
chloride (ZnCl₂), biological studies **7647-14-5**, Sodium
chloride (**NaCl**), biological studies **7647-15-6**,
Sodium bromide (NaBr), biological studies **7681-11-0**,
Potassium iodide (KI), biological studies **7681-49-4**,

Sodium fluoride (NaF), biological studies 7681-65-4,
 Copper iodide (CuI) 7681-82-5, Sodium iodide (NaI),
 biological studies 7705-08-0, Iron chloride (FeCl₃),
 biological studies 7758-02-3, Potassium bromide (KBr),
 biological studies 7758-89-6, Copper chloride (CuCl)
 7774-29-0, Mercury iodide (HgI₂) 7775-41-9, Silver
 fluoride (AgF) 7783-90-6, Silver chloride (AgCl),
 biological studies 7783-96-2, Silver iodide (AgI)
 7786-30-3, Magnesium chloride (MgCl₂), biological studies
 10043-52-4, Calcium chloride (CaCl₂), biological studies
 10058-23-8 10108-64-2, Cadmium chloride (CdCl₂)
 10112-91-1, Mercury chloride (Hg₂Cl₂) 10361-37-2,
 Barium chloride (BaCl₂), biological studies 12298-68-9,
 Potassium iodide (K(I₃))

(methods and comps. for increasing efficacy of biol.-active
 ingredients such as antitumor agents)

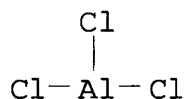
RN 1344-67-8 HCA

CN Copper chloride (8CI, 9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
====+	====+	=====
Cl	x	22537-15-1
Cu	x	7440-50-8

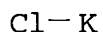
RN 7446-70-0 HCA

CN Aluminum chloride (AlCl₃) (9CI) (CA INDEX NAME)



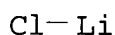
RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)



RN 7447-41-8 HCA

CN Lithium chloride (LiCl) (9CI) (CA INDEX NAME)



RN 7487-94-7 HCA

CN Mercury chloride (HgCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl-Hg-Cl

RN 7646-85-7 HCA
CN Zinc chloride (ZnCl₂) (9CI) (CA INDEX NAME)

Cl-Zn-Cl

RN 7647-14-5 HCA
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7647-15-6 HCA
CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

RN 7681-11-0 HCA
CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)

I-K

RN 7681-49-4 HCA
CN Sodium fluoride (NaF) (9CI) (CA INDEX NAME)

F-Na

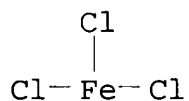
RN 7681-65-4 HCA
CN Copper iodide (CuI) (8CI, 9CI) (CA INDEX NAME)

Cu-I

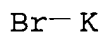
RN 7681-82-5 HCA
CN Sodium iodide (NaI) (9CI) (CA INDEX NAME)

I-Na

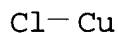
RN 7705-08-0 HCA
CN Iron chloride (FeCl₃) (8CI, 9CI) (CA INDEX NAME)



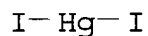
RN 7758-02-3 HCA
CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)



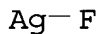
RN 7758-89-6 HCA
CN Copper chloride (CuCl) (8CI, 9CI) (CA INDEX NAME)



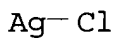
RN 7774-29-0 HCA
CN Mercury iodide (HgI₂) (8CI, 9CI) (CA INDEX NAME)



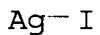
RN 7775-41-9 HCA
CN Silver fluoride (AgF) (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 7783-90-6 HCA
CN Silver chloride (AgCl) (9CI) (CA INDEX NAME)



RN 7783-96-2 HCA
CN Silver iodide (AgI) (9CI) (CA INDEX NAME)



RN 7786-30-3 HCA
CN Magnesium chloride (MgCl₂) (9CI) (CA INDEX NAME)



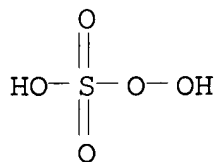
RN 10043-52-4 HCA

CN Calcium chloride (CaCl_2) (9CI) (CA INDEX NAME)



RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

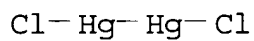
RN 10108-64-2 HCA

CN Cadmium chloride (CdCl_2) (7CI, 8CI, 9CI) (CA INDEX NAME)



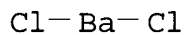
RN 10112-91-1 HCA

CN Mercury chloride (Hg_2Cl_2) (8CI, 9CI) (CA INDEX NAME)



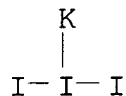
RN 10361-37-2 HCA

CN Barium chloride (BaCl_2) (9CI) (CA INDEX NAME)



RN 12298-68-9 HCA

CN Potassium iodide (K(I)_3) (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C12N

CC 1-6 (Pharmacology)

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2487-01-6	2492-26-4	2497-06-5	2497-07-6	2532-49-2
2536-26-7	2536-27-8	2540-82-1	2544-94-7	2545-59-7
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2597-97-9	2600-69-3	2610-86-8	2624-17-1	2631-37-0
2631-40-5	2635-10-1	2636-26-2	2637-34-5,	2(1H)-Pyridinethione
2642-71-9	2650-18-2	2655-14-3	2655-15-4	2655-19-8
2665-30-7	2668-92-0	2669-32-1	2674-91-1	2675-77-6
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2782-57-2	2782-70-9	2797-51-5	2809-21-4	2813-95-8
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	3380-34-5	3383-96-8	3391-86-4,	1-Octen-3-ol	3397-62-4
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	3766-60-7	3766-81-2	3768-14-7	3772-94-9	3778-73-2
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	4075-81-4	4095-45-8	4097-34-1	4097-36-3	4147-51-7
	4147-57-3	4154-35-2	4234-79-1	4342-03-4	4342-30-7
	4342-36-3	4418-66-0	4419-22-1	4466-14-2	4476-04-4
	4482-55-7	4489-31-0	4602-84-0	4636-83-3	4644-96-6
	4654-26-6	4658-28-0	4665-55-8	4684-94-0	4685-14-7
	4706-78-9	4719-04-4	4726-14-1	4808-30-4	4812-20-8
	4824-78-6	4849-32-5	4938-72-1	5012-62-4	5026-62-0
	5035-58-5	5064-31-3	5131-24-8	5131-66-8	5136-51-6
	5137-55-3	5221-53-4	5234-68-4	5251-79-6	5251-93-4
	5259-88-1	5281-04-9	5324-84-5	5328-04-1	5331-91-9
	5335-24-0	5375-87-1	5386-57-2	5386-68-5	5386-77-6
	5406-97-3	5468-43-9	5471-51-2	5538-94-3	5598-13-0
	5598-15-2	5598-52-7	5716-15-4	5722-59-8	5723-62-6
	5736-15-2	5742-19-8	5787-50-8	5822-97-9	5823-13-2
	5826-76-6	5827-05-4	5834-96-8	5836-29-3	5840-95-9
	5870-93-9	5895-18-1	5902-51-2	5902-79-4	5902-85-2
	5902-95-4	5902-97-6	5903-10-6	5915-41-3	5954-14-3

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 7076-63-3 7097-60-1 7110-49-8D, nickel complexes 7122-04-5
 7159-99-1 7166-19-0 7173-51-5 7206-15-7 7206-27-1
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 7681-52-9 7681-53-0 7681-57-4 **7681-65-4**, Copper iodide

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 , Potassium bromide (KBr), biological studies 7758-05-6
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 7778-44-1 7778-50-9 7778-53-2 7778-54-3 7778-66-7
 7778-70-3 7778-73-6 7778-77-0 7778-80-5, Sulfuric acid
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7783-90-6, Silver chloride (AgCl), biological studies
7783-96-2, Silver iodide (AgI) 7784-09-0 7784-24-9
 7784-26-1 7784-38-5 7784-40-9 7784-44-3 7784-46-5
 7785-87-7 7785-88-8 **7786-30-3**, Magnesium chloride
 (MgCl₂), biological studies 7786-34-7 7786-80-3 7786-81-4
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 7791-18-6 7791-25-5, Sulfuryl chloride 7803-51-2, Phosphine
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 8018-01-7 8022-00-2 8023-58-3, Sustane 3 8029-29-6, Bandane
 8030-15-7, Turgasept 8030-53-3 8063-85-2 8064-49-1 8065-36-9
 8065-48-3 8066-01-1 8068-77-7 8070-76-6 8071-40-7
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 9004-65-3 9004-67-5 9004-70-0 9004-82-4 9005-25-8D, Starch,

.alpha.=type, amycol, biological studies 9005-38-3 9005-53-2,
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 9012-76-4, Chitosan 9015-68-3, Asparaginase 9016-00-6,
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 10043-35-3, Boric acid (H₃BO₃), biological studies
10043-52-4, Calcium chloride (CaCl₂), biological studies
 10043-67-1 10045-86-0 10045-89-3 10049-04-4, Chlorine oxide
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10112-91-1, Mercury chloride (Hg₂Cl₂) 10117-38-1
 10124-36-4 10124-41-1 10124-43-3 10124-50-2 10124-65-9
 10125-13-0 10137-74-3 10138-04-2 10213-78-2 10233-94-0
 10248-55-2 10254-48-5 10257-54-2 10265-92-6 10279-57-9
 10290-12-7 10294-66-3 10309-97-4 10311-84-9 10326-21-3
 10326-24-6 10331-57-4 10361-16-7 **10361-37-2**, Barium
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 ingredients such as antitumor agents)
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 12002-03-8, C.I. Pigment Green 21 12002-48-1 12002-53-8
 12007-92-0, Boron sodium oxide (B₅NaO₈) 12008-41-2, Boron sodium
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 12057-74-8, Magnesium phosphide (Mg₃P₂) 12062-24-7 12068-06-3
 12068-08-5 12068-09-6 12068-12-1 12068-15-4 12068-16-5
 12071-83-9 12122-67-7 12124-97-9, Ammonium bromide ((NH₄)Br)
 12125-02-9, Ammonium chloride ((NH₄)Cl), biological studies
 12158-97-3, Copper oxide sulfate (Cu₃O₂(SO₄)) 12168-20-6, Copper
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 12379-54-3 12379-66-7 12407-86-2 12427-38-2 12447-61-9
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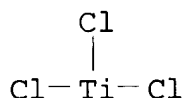
13356-08-6 13358-11-7 13360-45-7 13387-91-2 13410-01-0
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 18378-89-7 18467-88-4 18472-87-2 18479-55-5 18530-56-8
 18691-97-9 18748-91-9 18794-84-8 18854-01-8 18883-66-4
 19044-88-3 19379-90-9 19398-13-1 19480-43-4 19622-08-3
 19622-19-6 19651-91-3 19660-77-6 19691-80-6 19766-89-3
 19937-59-8 20276-83-9 20290-99-7 20427-58-1, Zinc hydroxide
 (Zn(OH)2) 20427-59-2, Copper hydroxide (Cu(OH)2) 20543-04-8
 20711-10-8 20762-60-1, Potassium azide (K(N3)) 20782-58-5
 20830-81-3

(methods and compns. for increasing efficacy of biol.-active
 ingredients such as antitumor agents)

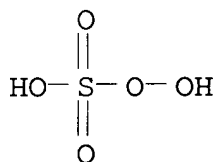
L37 ANSWER 3 OF 63 HCA COPYRIGHT 2006 ACS on STN

142:231393 High capacitance anode and system and method for making same.
 Hemphill, Ralph Jason; Strange, Thomas Flavian (Pacesetter, Inc.,
 USA). U.S. US 6858126 B1 20050222, 7 pp. (English). CODEN:
 USXXAM. APPLICATION: US 2002-289580 20021106.

- AB A method of producing electrodes for electrolytic capacitors by etching metal foil in a low pH etching electrolyte is disclosed. The low pH electrolyte is an **aq. soln.**, which comprises hydrochloric acid, glycerol, sodium perchlorate or perchloric acid, sodium persulfate and titanium (III) chloride. Anode foils etched according to the method of the invention maintain high capacitance gains, elec. porosity and strength. The elec. porosity of the etched foils is sufficiently high such that the overall Equiv. Series Resistance (ESR) is not increased in multilayer anodes configurations. Also described is a low pH electrolyte bath compn. Anode foils etched according to the present invention and electrolytic capacitors incorporating the etched anode foils are also disclosed.
- IT 7705-07-9, Titanium chloride (TiCl₃), processes
15593-29-0 28831-12-1
(high capacitance anode and system and method for making same)
- RN 7705-07-9 HCA
- CN Titanium chloride (TiCl₃) (8CI, 9CI) (CA INDEX NAME)

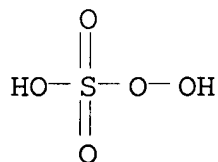


- RN 15593-29-0 HCA
- CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

- RN 28831-12-1 HCA
- CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

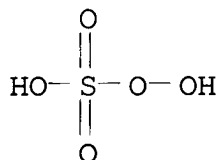
- IC ICM B23H011-00
ICS B23H003-00
- INCL 205674000; 205640000; 205675000; 205684000; 205682000; 205324000;
205325000; 205326000; 205328000; 205329000
- CC 76-10 (Electric Phenomena)
- IT 56-81-5, Glycerol, processes 7601-89-0, Sodium perchlorate
7601-90-3, Perchloric acid, processes 7705-07-9, Titanium
chloride (TiCl₃), processes 7775-27-1, Sodium persulfate
15593-29-0 28831-12-1
(high capacitance anode and system and method for making same)
- L37 ANSWER 4 OF 63 HCA COPYRIGHT 2006 ACS on STN
142:24945 **Disinfectant** cleaners with excellent storage
stability and foamability. Toyota, Takeshi; Nakagi, Junji (Shikoku
Chemicals Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2004346162 A2
20041209, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
2003-143867 20030521.
- AB The cleaners, useful for cleaning drains in kitchens, bathrooms, in
toilets, contain persulfate salts, iodides, and blowing agents.
Thus, a tablet from a 5:5:15:35:40 K peroxymonosulfate-KI-Na
carbonate-Na bicarbonate-succinic acid mixt. showed good soly. in
water and caused no coloration of a polyethylene bag until 30 days
from start of storage in the bag at 40.degree. and 75% relative
humidity.
- IT 7681-11-0, Potassium iodide, uses 7681-82-5,
Sodium iodide, uses 10058-23-8, Potassium
peroxymonosulfate
(**disinfectant** cleaners contg. persulfates, iodides, and
blowing agents with good storage stability and foamability)
- RN 7681-11-0 HCA
- CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)
- I-K
- RN 7681-82-5 HCA

CN Sodium iodide (NaI) (9CI) (CA INDEX NAME)

I-Na

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IC ICM C11D007-18

ICS A01N025-16; A01N025-34; A01N059-00; A01N059-12; C11D003-48;
C11D007-12; C11D007-26; C11D017-06

CC 46-6 (Surface Active Agents and Detergents)

ST **disinfectant** cleaner potassium persulfate iodide
foamability; cleaner carbonate blowing agent storage stability;
peroxymonosulfate iodide bilayer tablet drain cleaning

IT Blowing agents

Disinfectants
Tablets

(**disinfectant** cleaners contg. persulfates, iodides, and
blowing agents with good storage stability and foamability)

IT Iodides, uses

Peroxysulfates

(**disinfectant** cleaners contg. persulfates, iodides, and
blowing agents with good storage stability and foamability)

IT Cleaning

(solid cleaners; **disinfectant** cleaners contg.
persulfates, iodides, and blowing agents with good storage
stability and foamability)

IT 77-92-9, Citric acid, uses 110-15-6, Succinic acid, uses
110-17-8, Fumaric acid, uses 144-55-8, Sodium bicarbonate, uses
497-19-8, Sodium carbonate, uses

(blowing agent; **disinfectant** cleaners contg.
persulfates, iodides, and blowing agents with good storage
stability and foamability)

IT **7681-11-0**, Potassium iodide, uses **7681-82-5**,
Sodium iodide, uses **10058-23-8**, Potassium

peroxymonosulfate

(**disinfectant** cleaners contg. persulfates, iodides, and blowing agents with good storage stability and foamability)

L37 ANSWER 5 OF 63 HCA COPYRIGHT 2006 ACS on STN

140:344473 Method to inhibit growth of microorganisms in aqueous systems and on substrates using a persulfate and a bromide. Zhou, Xiangdong; Mcneel, Thomas E. (Buckman Laboratories International, Inc., USA). U.S. Pat. Appl. Publ. US 2004084383 A1 20040506, 9 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-283187 20021030.

AB The invention is a method to inhibit the growth of at least one microorganism in an aq. system capable of supporting such growth. This includes controlling, and preferably preventing, slime formation in the aq. system. The method mixes a persulfate salt, a bromide salt, and water under conditions sufficient to form an active bromine-contg., [Br +], soln. and then adds an effective amt. of the active bromine-contg. **soln.** to an **aq** . system to inhibit the growth of at least one microorganism in the aq. system. Also, the invention is a method to inhibit the growth of at least one microorganism on a substrate capable of supporting such growth. The method contacts the substrate with an effective amt. of active bromine-contg. soln. to inhibit the growth of at least one microorganism on the substrate. Combining an amine source with the persulfate salt and bromide salts generates an active bromine-contg. soln. which also contains bromamines.

IT **7647-15-6**, Sodium bromide, biological studies
7758-02-3, Potassium bromide, biological studies
7789-41-5, Calcium bromide **7789-48-2**, Magnesium bromide **28831-12-1**, Sodium persulfate

(method to inhibit growth of microorganisms in aq. systems and on substrates using a persulfate and a bromide)

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 7758-02-3 HCA

CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br—K

RN 7789-41-5 HCA

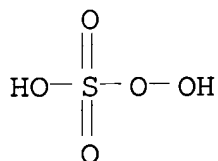
CN Calcium bromide (CaBr₂) (9CI) (CA INDEX NAME)

Br—Ca—Br

RN 7789-48-2 HCA
 CN Magnesium bromide (MgBr₂) (9CI) (CA INDEX NAME)

Br—Mg—Br

RN 28831-12-1 HCA
 CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C02F001-76
 INCL 210754000; 210764000
 CC 61-5 (Water)
 Section cross-reference(s): 17, 43, 45
 ST bromamine bromide persulfate water **disinfection** biofilm prevention
 IT **Sterilization and Disinfection**
 (method to inhibit growth of microorganisms in aq. systems and on substrates using a persulfate and a bromide)
 IT Water purification
 (**sterilization and disinfection**; method to inhibit growth of microorganisms in aq. systems and on substrates using a persulfate and a bromide)
 IT **7647-15-6**, Sodium bromide, biological studies 7727-21-1, Potassium persulfate 7727-54-0, Ammonium persulfate **7758-02-3**, Potassium bromide, biological studies **7789-41-5**, Calcium bromide **7789-48-2**, Magnesium bromide 12124-97-9, Ammonium bromide 13235-16-0, Calcium persulfate 14519-10-9, Bromamine 15092-81-6D, Peroxydisulfate ((SO₃)₂O₂₂-), alkali metal, alk. earth metal and cationic amine persulfate salts 15593-67-6, Magnesium persulfate 24959-67-9D, **Bromide**, **alkali** metal, alk. earth metal and cationic amine salts **28831-12-1**, Sodium persulfate
 (method to inhibit growth of microorganisms in aq. systems and on substrates using a persulfate and a bromide)

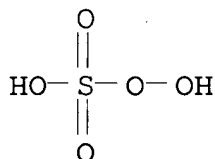
138:387851 Aqueous fracturing fluids for deep water offshore petroleum recovery. Crews, James B. (USA). U.S. Pat. Appl. Publ. US 2003092584 A1 20030515, 15 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-280635 20021025. PRIORITY: US 2001-2001/PV337714 20011113.

AB Aq. fracturing fluids for deep-water (>1000 ft depth) completion fracturing contain a hydratable polymer, a crosslinking agent, a crosslinking delay agent, a gel breaking agent, and two different (i.e., thermodyn. and kinetic-antiagglomerate) natural gas hydrate inhibitors. The hydratable polymers are polysaccharides, such as guar gum and guar gum derivs. (e.g., hydroxypropyl guar, carboxymethyl hydroxypropyl guar gum). Addnl. components include pH buffers, biocides, surfactants, non-emulsifiers, antifoaming agents, scale inhibitors, colorants, and clay control agents. Crosslinking agents include slurried borax suspensions, ulexite, colemanite, and complexes of borate ion, zirconate ion, and titanate ion with polyols selected from sorbitol, mannitol, sodium gluconate, sodium glucoheptonate, glycerol, .alpha.lpha-D-glucose, fructose, ribose, and alkyl glucosides.

IT 15593-29-0, Sodium persulfate
(gel breaking agent; aq. fracturing fluids for deep water offshore petroleum recovery)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IT 7447-40-7, Potassium chloride, uses 7647-14-5, Sodium chloride, uses 7786-30-3, Magnesium chloride, uses 10043-52-4, Calcium chloride, uses
(natural gas hydrate inhibitor; aq. fracturing fluids for deep water offshore petroleum recovery)

RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7786-30-3 HCA

CN Magnesium chloride (MgCl₂) (9CI) (CA INDEX NAME)

Cl-Mg-Cl

RN 10043-52-4 HCA

CN Calcium chloride (CaCl₂) (9CI) (CA INDEX NAME)

Cl-Ca-Cl

IC ICM E21B001-00

INCL 507200000

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)

Section cross-reference(s): 44

IT Enzymes, processes

(gel breaking **compns.**; **aq.** fracturing fluids
for deep water offshore petroleum recovery)

IT Peroxy acids

(gel breaking **compns.**; **aq.** fracturing fluids
for deep water offshore petroleum recovery)

IT Carboxylic acids, processes

(peroxy, gel breaking **compns.**; **aq.** fracturing
fluids for deep water offshore petroleum recovery)

IT 3313-92-6, Sodium percarbonate 7758-19-2, Sodium chlorite
15593-29-0, Sodium persulfate

(gel breaking agent; **aq.** fracturing fluids for deep water
offshore petroleum recovery)

IT 111-76-2, Ethylene glycol monobutyl ether **7447-40-7**,

Potassium chloride, uses **7647-14-5**, Sodium chloride, uses

7786-30-3, Magnesium chloride, uses **10043-52-4**,

Calcium chloride, uses 524946-71-2, Inhibex 101

(natural gas hydrate inhibitor; **aq.** fracturing fluids for deep
water offshore petroleum recovery)

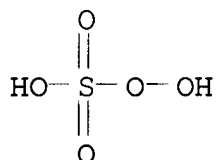
L37 ANSWER 7 OF 63 HCA COPYRIGHT 2006 ACS on STN

138:380749 Effects of **disinfectants** marketed in Japan on the
foot-and-mouth disease virus. Shirai, Junsuke (National Institute
of Animal Health, National Agricultural Research Organization,
Kodaira, 187-0022, Japan). Nippon Juishikai Zasshi, 55(9), 575-579
(Japanese) **2002**. CODEN: NIPJAV. ISSN: 0446-6454.
Publisher: Nippon Juishikai.

- AB This study on **disinfectants** marketed in Japan on the foot-and-mouth disease virus (FMDV) employed 16 products supplied by 13 companies and classified into 7 groups according active **disinfectant** mixed with ingredient: iodine, chlorine, aldehyde, phenol, quaternary ammonium compd., **disinfectant** complex, and 0.2% NaOH. The representative virus was the FMDV Japanese isolate (O/JPN/2000 strain). The FMDV control was the swine vesicular-disease virus (SVDV: J1 strain). **Disinfectant** effects were examd. by means of the plaque-redn. method. Results showed iodine-, chlorine-, and aldehyde-group **disinfectants** to be clearly effective against FMDV and SVDV. Phenolic and quaternary ammonium compds., however, were ineffective against FMDV and SVDV. The effects of **disinfectant** pH on FMDV were obsd. in several instances.
- IT 7647-14-5, Sodium chloride, biological studies
10058-23-8, Potassium hydrogen persulfate
(effectiveness of **disinfectants** marketed in Japan against foot-and-mouth disease virus)
- RN 7647-14-5 HCA
- CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

- RN 10058-23-8 HCA
- CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

- CC 5-2 (Agrochemical Bioregulators)
Section cross-reference(s): 10
- ST **disinfectant** foot mouth disease virus
- IT Quaternary ammonium compounds, biological studies
(alkylbenzyl dimethyl, chlorides; effectiveness of **disinfectants** marketed in Japan against foot-and-mouth disease virus)
- IT Foot-and-mouth disease virus
(**disinfectants** marketed in Japan effects on)

IT Antiviral agents

Disinfectants

(effectiveness of **disinfectants** marketed in Japan
against foot-and-mouth disease virus)

IT 56-40-6D, Glycine, alkyldiaminoethyl, biological studies 95-50-1,
o-Dichlorobenzene 111-30-8, Glutaraldehyde 1310-73-2, Sodium
hydroxide (NaOH), biological studies 1321-10-4, Chlorocresol
2893-78-9, Sodium dichloroisocyanurate 7173-51-5,
Didecyltrimethylammonium chloride 7553-56-2D, Iodine, compds.
7647-14-5, Sodium chloride, biological studies
10058-23-8, Potassium hydrogen persulfate 25655-41-8,
Povidone-iodine 35860-86-7 104128-33-8, Glycine, compd. with
iodine

(effectiveness of **disinfectants** marketed in Japan
against foot-and-mouth disease virus)

L37 ANSWER 8 OF 63 HCA COPYRIGHT 2006 ACS on STN

138:44363 **Disinfection** of water. Bogie, Kenneth David (de
Waal Schalk, Willem Petrus, S. Afr.). S. African ZA 9701266 A
19970916, 23 pp. (English). CODEN: SFXAB. APPLICATION:
ZA 1997-1266 19970214. PRIORITY: ZA 1996-161 19960110.

AB A **disinfection** compn. comprises: a **disinfecting**
component and an activator component for activating the
disinfecting component into a **disinfecting** form in
an aq. medium, wherein: (a) the **disinfecting** component is
selected from any one of sodium bromide, potassium bromide, ammonium
bromide, potassium iodide, sodium iodide, trichloroisocyanurate,
sodium chloride or a combination of any two or more thereof; and (b)
the activator component is an oxidizing agent, with the proviso that
if the **disinfecting** component is sodium bromide, then the
activator component is not hydrogen peroxide or **potassium**
monopersulfate, and if the **disinfecting** component
is sodium chloride, then the activator component is not
potassium monopersulfate.

IT **7647-14-5**, Sodium chloride, biological studies
7647-15-6, Sodium bromide, biological studies
7681-11-0, Potassium iodide, biological studies
7681-82-5, Sodium iodide, biological studies
7758-02-3, Potassium bromide, biological studies
10058-23-8 **15593-29-0**, Sodium persulfate
(**disinfection** of water)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 7681-11-0 HCA

CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)

I—K

RN 7681-82-5 HCA

CN Sodium iodide (NaI) (9CI) (CA INDEX NAME)

I—Na

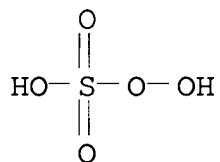
RN 7758-02-3 HCA

CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br—K

RN 10058-23-8 HCA

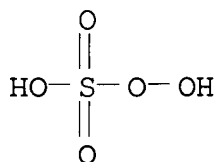
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IC ICM A01N
ICS C02F
CC 61-5 (Water)
ST **disinfection** water purifn
IT Containers
(biodegradable; **disinfection** of water)
IT Water purification
(**sterilization** and **disinfection**;
disinfection of water)
IT 75-91-2, tert-Butyl hydroperoxide 87-90-1, Trichloroisocyanuric
acid 1305-79-9, Calcium peroxide 1313-60-6, Sodium peroxide
1320-16-7, tert-Butyl benzoic acid 1711-40-6 **7647-14-5**,
Sodium chloride, biological studies **7647-15-6**, Sodium
bromide, biological studies **7681-11-0**, Potassium iodide,
biological studies **7681-82-5**, Sodium iodide, biological
studies 7722-84-1, Hydrogen peroxide, biological studies
7727-21-1, Potassium persulfate 7727-54-0, Ammonium persulfate
7758-02-3, Potassium bromide, biological studies
7758-19-2, Sodium chlorite **10058-23-8** 12030-88-5,
Potassium superoxide 12034-12-7, Sodium superoxide 12124-97-9,
Ammonium bromide 13235-16-0, Calcium persulfate 13444-71-8,
Periodic acid **15593-29-0**, Sodium persulfate 17014-71-0,
Potassium peroxide 52296-99-8 109536-69-8, Magnesium
monoperoxyphthalate
(**disinfection** of water)

L37 ANSWER 9 OF 63 HCA COPYRIGHT 2006 ACS on STN
135:376857 Color changing steam **sterilization** indicator.
Patel, Gordhanbhai Nathalal (JP Laboratories, Inc., USA). PCT Int.
Appl. WO 2001086289 A1 **20011115**, 46 pp. DESIGNATED
STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ,

CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US14604 20010507. PRIORITY: US 2000-PV202388 20000508.

AB There is provided a device for monitoring **sterilization** of a material with steam comprising at least one layer, having incorporated therein an isomeric indicator, capable of undergoing at least one color change and optionally a controller for said indicator capable of influencing the time and temp. required for said color change when contact with steam. An ink formulation was prep'd. by mixing 1000 g of EC 001270, 20 g of Direct Blue 71 as an indicator, 20 g of tetramethylenediamine as a controller, and 25 g of 20% zinc oxide soln. The mixt. was coated on paper and polyester film. The coatings were purple color and change to blue color when exposed to steam.

IT **7647-14-5**, Sodium chloride, uses
(color changing steam **sterilization** indicator)

RN 7647-14-5 HCA

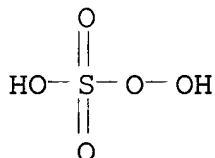
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl—Na

IT **28831-12-1**, Sodium persulfate
(color changing steam **sterilization** indicator)

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM G01N033-48

CC 63-8 (Pharmaceuticals)

ST color indicator steam **sterilization**

IT Wastes

(biol.; color changing steam **sterilization** indicator)

IT Paraffin oils

(chloro; color changing steam **sterilization** indicator)

IT Chelating agents

Colorimetric indicators

Dissolution
Drug delivery systems
Dyes
Food
Humidity
Oxidation
Oxidizing agents
Paper
Pigments, nonbiological
Plastic films
Polymorphism (crystal)
Reducing agents
Reduction

Sterilization and Disinfection

- Tautomers
 (color changing steam **sterilization** indicator)
- IT Acids, uses
Amides, uses
Amines, uses
Esters, uses
Lactones
Metals, uses
Paraffin oils
Polyolefins
 (color changing steam **sterilization** indicator)
- IT Acrylic polymers, uses
Amine oxides
Chelates
Nitrates, uses
Peroxides, uses
Peroxy acids
Polymers, uses
Polyurethanes, uses
 (color changing steam **sterilization** indicator)
- IT Hydrides
 (color changing steam **sterilization** indicator)
- IT Nitrites
 (color changing steam **sterilization** indicator)
- IT Organic compounds, reactions
 (color changing steam **sterilization** indicator)
- IT Oximes
 (color changing steam **sterilization** indicator)
- IT Sulfides, reactions
 (color changing steam **sterilization** indicator)
- IT Halides
 (complexes; color changing steam **sterilization**
 indicator)
- IT Group VIA element compounds

- (dithionites; color changing steam **sterilization** indicator)
- IT Solvents
(org.; color changing steam **sterilization** indicator)
- IT Halogen compounds
Per compounds
(periodates; color changing steam **sterilization** indicator)
- IT Alcohols, uses
(polyhydric; color changing steam **sterilization** indicator)
- IT 4569-88-4, Indoine Blue
(Indoine Blue; color changing steam **sterilization** indicator)
- IT 65-45-2, Salicylamide 65-85-0, Benzoic acid, uses 71-91-0, Tetraethylammonium bromide 83-87-4, Glucose pentaacetate 87-89-8, Inositol 108-95-2, Phenol, uses 111-18-2 517-28-2, Hematoxylin 594-65-0, Trichloroacetamide 620-40-6, Tribenzylamine 1134-87-8 7601-90-3, Perchloric acid, uses 12627-53-1, Leishman's stain 13963-57-0, Aluminum acetylacetonate 14024-18-1, Iron acetylacetonate 64296-33-9, Vitamin c palmitate 372966-84-2 372966-85-3 373598-47-1, EC 001270
(color changing steam **sterilization** indicator)
- IT 61-73-4, Methylene blue 107-15-3, Ethylene diamine, uses 108-91-8, Cyclohexylamine, uses 109-89-7, Diethylamine, uses 111-42-2, Diethanolamine, uses 115-39-9, Bromophenol blue 115-40-2, Bromocresol purple 128-80-3, Solvent Green 3 532-82-1, Chrysoidine 573-58-0, Congo red 581-64-6, Thionin 603-48-5, Leuco crystal violet 992-59-6, Benzo Purpurin 4B 1314-13-2, Zinc oxide, uses 1658-56-6, Acid Red 88 1945-77-3, Methylthymol blue 2092-55-9, Acid Alizarin Violet N 2303-01-7 2381-85-3, Nile blue chloride 2465-27-2, Auramine O 2475-44-7, Disperse Blue 14 2646-15-3, Oil Blue N 2829-43-8, Direct Red 75 2869-83-2, Janus Green B 2870-32-8, Chrysophenine 3351-05-1, Acid Blue 113 3564-14-5, Eriochrome Blue Black B 4399-55-7, Direct Blue 71 4680-78-8, Guinea Green B 5413-75-2, Brilliant Croceine MOO 5715-76-4 6035-94-5, Pararosaniline acetate 6994-46-3, Solvent Blue 59 **7647-14-5**, Sodium chloride, uses 7697-37-2D, Nitric acid, alkyl derivs., uses 8004-92-0, Quinoline yellow 8005-77-4, Bismarck Brown Y 9002-86-2, Pvc 9002-89-5, Polyvinyl alcohol 9003-05-8, Polyacrylamide 9003-20-7, Polyvinyl acetate 9003-53-6, Polystyrene 9004-32-4, Carboxymethyl cellulose 9004-70-0, Cellulose nitrate 12679-76-4, Azure 13558-31-1 14797-73-0, Perchlorate 15092-81-6, Peroxydisulfate ((SO3)2O22-) 15391-59-0, Darrow red 16574-43-9, Bromopyrogallol red 23481-50-7, Dimethylmethylene blue 28983-56-4, Acid Blue 93 32638-88-3, Pyrogallol red
(color changing steam **sterilization** indicator)

IT 50-81-7, Ascorbic acid, reactions 50-81-7D, Ascorbic acid, derivs.
89-65-6, Isoascorbic acid 94-67-7, Salicylaldoxime 105-11-3,
Benzoquinone dioxime 135-20-6, Cupferron 302-01-2, Hydrazine,
reactions 540-72-7, Sodium thiocyanate 917-61-3, Sodiumcyanate
1192-28-5, Cyclopentanone oxime 1762-95-4, Ammonium thiocyanate
6484-52-2, Ammonium nitrate, reactions 7439-89-6D, Iron, salts,
reactions 7631-90-5, Sodiumbisulfite 7632-00-0, Sodium nitrite
7722-84-1, Hydrogen peroxide, reactions 7757-83-7, Sodium sulfite
7772-98-7, Sodium thiosulfate 7775-14-6, Sodium hydrosulfite
10196-04-0, Ammonium sulfite 13821-08-4, Calciumferrocyanide
14265-45-3, Sulfite 16721-80-5, Sodiumhydrosulfide 16940-66-2,
Sodium borohydride 16971-29-2, Borohydride 23873-81-6,
Diphenylglyoxime **28831-12-1**, Sodium persulfate
(color changing steam **sterilization** indicator)

L37 ANSWER 10 OF 63 HCA COPYRIGHT 2006 ACS on STN

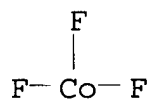
135:262034 Oxidative fluorinator compounds as antimicrobials for use in
cosmetics. Antelman, Marvin S. (Marantech Holding, Llc, USA). PCT
Int. Appl. WO 2001072275 A1 **20011004**, 16 pp. DESIGNATED
STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG,
CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML,
MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.
APPLICATION: WO 2001-US8874 20010320. PRIORITY: US 2000-PV192677
20000328.

AB The invention relates to a method and compn. for destroying or
inhibiting proliferation of microbes using oxidative fluorinator
compds. Fluoride salts that do not dissoc. completely in **aq**
. **solns.**, such a tri- or tetravalent transition
metal fluorides, inert gas fluorides, or tri- or
tetravalent rare earth fluorides, are effective antimicrobial agents
event at levels up to about 20 ppm, when used alone or in
conjunction with a strong oxidizer. A hand soap was prepd.
comprising an **aq. mixt.** of coconut fatty acid
amide and sodium lauryl sulfate. Xenon fluoride was incorporated
into the soap at a level of 5 ppm. The soap inhibited the growth of
cultures contg. various microbes at a level of about 320,000 cfu/mL
by 99.9%.

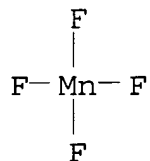
IT **10026-18-3**, Cobalt trifluoride
(oxidative fluorinator compds. as antimicrobials)

RN 10026-18-3 HCA

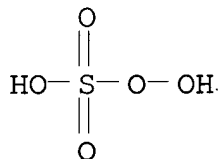
CN Cobalt fluoride (CoF3) (6CI, 8CI, 9CI) (CA INDEX NAME)



IT 15195-58-1, Manganese tetrafluoride 25482-78-4
 28831-12-1, Sodium persulfate 60765-13-1, Nickel
 tetrafluoride
 (oxidative fluorinator compds. as antimicrobials)
 RN 15195-58-1 HCA
 CN Manganese fluoride (MnF₄) (6CI, 7CI, 9CI) (CA INDEX NAME)

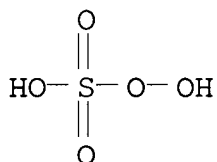


RN 25482-78-4 HCA
 CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



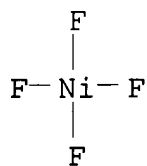
●x K

RN 28831-12-1 HCA
 CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 60765-13-1 HCA
CN Nickel fluoride (NiF₄) (9CI) (CA INDEX NAME)



IC ICM A61K007-20
ICS A61K009-68; A61K033-40; A01N039-00
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 1
IT Transition **metal halides**
(**alkali metal fluorides**; oxidative
fluorinator compds. as antimicrobials)
IT Alkali **metal fluorides**
(transition **metal fluorides**; oxidative
fluorinator compds. as antimicrobials)
IT **10026-18-3**, Cobalt trifluoride
(oxidative fluorinator compds. as antimicrobials)
IT 7727-21-1, Potassium persulfate **10026-18-3**, Cobalt
trifluoride 13693-09-9, Xenon hexafluoride 13709-36-9, Xenon
difluoride 13709-61-0, Xenon tetrafluoride **15195-58-1**,
Manganese tetrafluoride **25482-78-4** **28831-12-1**,
Sodium persulfate 57034-81-8, Xenon fluoride **60765-13-1**,
Nickel tetrafluoride
(oxidative fluorinator compds. as antimicrobials)

L37 ANSWER 11 OF 63 HCA COPYRIGHT 2006 ACS on STN
135:212635 Cleaning **composition** for household cleaning
material. Rogers, Nicola; Thompson, Katherine; Thornthwaite, David
William (Unilever PLC, UK). Eur. Pat. Appl. EP 1130082 A1
20010905, 12 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK,
ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
(English). CODEN: EPXXDW. APPLICATION: EP 2000-301725 20000303.
AB A dual container delivery system comprises a 1st container contg. a
1st **aq. soln.** comprising a peracid or a source
thereof and a 2nd container contg. a 2nd **aq. soln**
. comprising a halide. Delivery means is provided for delivering
the 1st and 2nd solns. to a surface such that the peracid and halide
react just before or upon impacting the surface to produce a
cleaning compn. comprising a hypohalite bleach.
IT **7647-14-5**, Sodium chloride, uses **7647-15-6**, Sodium
bromide, uses **10361-76-9**, Potassium peroxomonosulfate
(cleaning compn. for household cleaning material)
RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl—Na

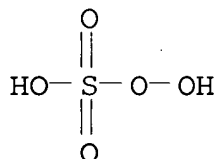
RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 10361-76-9 HCA

CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

IC ICM C11D003-39

ICS C11D003-395; C11D003-02; C11D017-04

CC 46-6 (Surface Active Agents and Detergents)

IT **7647-14-5**, Sodium chloride, uses **7647-15-6**, Sodium bromide, uses **10361-76-9**, Potassium peroxomonosulfate 109536-69-8, Magnesium monoperoxyphthalate (cleaning compn. for household cleaning material)

L37 ANSWER 12 OF 63 HCA COPYRIGHT 2006 ACS on STN

135:181476 Thermoplastic flexible fluorinated polymeric **composition**. Abusleme, Julio A.; Manzoni, Claudia (Ausimont S.P.A., Italy; Solvay Solexis S.P.A.). Eur. Pat. Appl. EP 1125982 A2 **20010822**, 17 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-101784 20010126. PRIORITY: IT 2000-MI247 20000215.

AB The compn. comprises a mixt. of (a) 10-70% ethylene and (b) 30-90% a fluorinated monomer selected from tetrafluoroethylene and/or chlorotrifluoroethylene contg. (c) 0.1-30 phr .gtoreq.1 acrylic monomer having formula of CH₂:CHCOOR₁ (R₁ = C₁-20 alkyl, C₃-20 cycloalkyl, H; R₁ radical may contain Cl, O, N, functional group of OH, COOH, epoxide, ester, ether, double bonds); characterized in

that the polymer mixt. comprises polymer fractions having a different content of the acrylic comonomer such that the elastic modulus at 23.degree.C (ASTM D1708) of the polymer mixt. is .ltoreq.10% of the elastic modulus of a polymer formed by monomers (a), (b) and (c) wherein the polymer fractions have substantially an equal content of the acrylic comonomer. Thus, a compn. was made by the polymn. of polychlorotrifluoroethylene, ethylene, and Bu acrylate in the presence of trichloroacetylperoxide in isooctane.

IT 10043-52-4, Calcium chloride, uses
(coagulating agents; thermoplastic flexible fluorinated polymeric compn.)

RN 10043-52-4 HCA

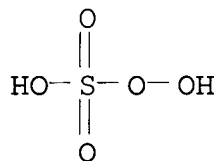
CN Calcium chloride (CaCl₂) (9CI) (CA INDEX NAME)

Cl-Ca-Cl

IT 28831-12-1, Sodium persulfate
(radical initiators; thermoplastic flexible fluorinated polymeric compn.)

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C08L027-12

CC 37-6 (Plastics Manufacture and Processing)

IT 7647-01-0, Hydrochloric acid, uses 7697-37-2, Nitric acid, uses
10043-01-3, Aluminum sulfate 10043-52-4, Calcium chloride,
uses

(coagulating agents; thermoplastic flexible fluorinated polymeric compn.)

IT 75-91-2, Tert-Butylhydroperoxide 105-64-6,
Di(isopropylperoxydicarbonate) 110-05-4, Di-tert-butylperoxide
360-41-8 1758-73-2, Aminoiminomethanesulfinic acid 2629-78-9
7722-84-1, Hydrogen peroxide, uses 7727-21-1, Potassium persulfate
7727-54-0, Ammonium persulfate 7757-83-7, Sodium sulfite
16066-38-9, Di(propylperoxydicarbonate) 23134-05-6, Metabisulfite
28831-12-1, Sodium persulfate

(radical initiators; thermoplastic flexible fluorinated polymeric compn.)

L37 ANSWER 13 OF 63 HCA COPYRIGHT 2006 ACS on STN

135:170508 Device and method using dry **mixtures** for whitening teeth. McLaughlin, Gerald (USA). U.S. US 6274122 B1
20010814, 11 pp. (English). CODEN: USXXAM. APPLICATION:
US 1999-312935 19990517. PRIORITY: US 1999-PV114976 19990107.

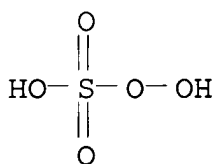
AB A device is provided for the treatment of teeth including an outer layer of non-porous polymeric material forming a trough, an inner layer forming an inner lining of the trough, and a treatment layer including a treatment agent disposed between the outer layer and the inner layer. The inner layer allows penetration of the treatment agent through after an **aq. soln.** is introduced to the device. A device is provided for the treatment of teeth including an outer layer of non-porous polymeric material in the form of a trough, wherein the trough has an outside and an inside surface. An outer lining layer is proximate to the inside surface of the outer layer; the outer lining layer includes a material for retaining a treatment agent. An inner lining layer forms an inner lining of the trough, wherein the inner lining layer includes a water-permeable material. A treatment layer is disposed between the inner lining layer and the outer lining layer, wherein the treatment layer includes a treatment agent. A method is provided for bleaching teeth or dentures of a subject. The method includes providing a laminated device having a trough for the treatment of the teeth of the subject, wherein the device includes an outer layer of non-porous polymeric material in the form of a trough, an inner layer forming an inner lining of the trough, and a treatment layer including a treatment agent disposed between the outer layer and the inner layer. An **aq. soln.** is added to the laminated device, and the teeth or dentures of the subject in are placed in the device. A method of treating a tooth is provided, including capturing a treatment agent between a liner and a trough; and introducing an **aq. soln.**, thereby inducing the penetration of said treatment agent through said liner to treat the tooth. A compn. is provided for the whitening of a tooth including a dry form of a gel forming agent and a bleaching agent. A laminated device is provided that has a trough for the treatment of the teeth of a subject, wherein the device includes a first layer of non-porous polymeric material in the form of a trough and a premeasured amt. of a compn. for whitening of a tooth including a dry form of a gel forming agent and a bleaching agent. The intaglio of a dental tray was coated with 0.04 g of sodium polyacrylate. A mixt. was made of 0.06 g of sodium polyacrylate, 0.7 g urea peroxide, 1 g. hydroxyethyl cellulose, and sufficient flavoring to impart a pleasant taste to the mixt. The mixt. was evenly distributed along the inner walls of the tray. A porous layer of

flexible plastic material was sealed using a heat sensitive adhesive to the outer rim of the first Styrofoam layer to form an inner layer. As the porous flexible plastic was not elastic (it was not sufficiently stretchable), the plastic was secured with sufficient slack to allow the teeth to be inserted into the tray without compromising the integrity of the plastic sheeting, and without breaking the seal between the third layer of flexible plastic and the first layer of dental tray. At the time of use, a subject filled the tray with 6 mL of water, and the tray was placed into the mouth covering the teeth to be whitened were covered. The tray was left in place such that the inner layer contacted the subject's teeth for ninety minutes. At the end of the wearing period, a small but clearly visible increase in whiteness of the teeth was evident. This whitening was approx. equal to 2-3 wk of daily use of an over the counter tooth whitening paste.

IT 7681-49-4, Sodium fluoride, biological studies
 10361-76-9, Potassium peroxymonosulfate 10476-85-4
 , Strontium chloride. 25482-78-4
 (device and method using dry mixts. for whitening teeth)
 RN 7681-49-4 HCA
 CN Sodium fluoride (NaF) (9CI) (CA INDEX NAME)

F- Na

RN 10361-76-9 HCA
 CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)

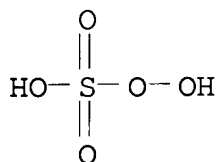


● 2 K

RN 10476-85-4 HCA
 CN Strontium chloride (SrCl₂) (9CI) (CA INDEX NAME)

Cl-Sr-Cl

RN 25482-78-4 HCA
 CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



● x K

- IC ICM A61K007-16
ICS A61K007-20; A61C005-00; A61G017-02
- INCL 424053000
- CC 62-7 (Essential Oils and Cosmetics)
- IT 55-56-1, Chlorhexidine 60-54-8, Tetracycline 77-92-9, Citric acid, biological studies 77-92-9D, Citric acid, salts 93-58-3, Methyl benzoate 97-53-0, Eugenol 123-03-5, Cetyl pyridinium chloride 124-43-6, Carbamide peroxide 546-93-0, Magnesium carbonate 1305-62-0, Calcium hydroxide, biological studies 1335-30-4, Aluminum silicate. 1406-18-4, vitamin E. 2315-68-6, Propyl benzoate 3811-04-9, Potassium chlorate 4452-58-8, Sodium percarbonate 7646-93-7, Potassium bisulfate **7681-49-4**, Sodium fluoride, biological studies 7722-84-1, Hydrogen peroxide, biological studies 7727-21-1, Potassium persulfate 7727-54-0, Ammonium persulfate 7757-79-1, Potassium nitrate, biological studies 7778-80-5, Potassium sulfate, biological studies 9002-18-0, agar, 9003-01-4, Polyacrylic acid 9003-04-7, Sodium polyacrylate 9003-05-8D, Polyacrylamide, hydrolyzed 9003-06-9, Acrylamide-acrylic acid copolymer 9003-39-8, Poly-N-vinylpyrrolidone 9004-62-0, Hydroxyethyl cellulose 9005-25-8, Starch, biological studies **10361-76-9**, Potassium peroxymonosulfate **10476-85-4**, Strontium chloride. 24980-94-7 **25482-78-4** 34055-87-3, Polyacrylamide Sodium salt 37222-66-5, Oxone 37353-59-6, Hydroxymethyl cellulose 61626-62-8 77073-93-9, Poly-sulfoethyl acrylate (device and method using dry mixts. for whitening teeth)
- L37 ANSWER 14 OF 63 HCA COPYRIGHT 2006 ACS on STN
- 135:34344 Modification of wool fibers for improved pilling resistance by treating wool fibers with **aqueous solutions** containing ozone bubbles. Nakase, Kazuhiro; Oshima, Kunihiro; Umehara, Akira; Ichimura, Hisashi (Kurashiki Spinning Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001164460 A2 **20010619**, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-236735 20000804. PRIORITY: JP 1999-279065 19990930.
- AB Pilling-resistant wool fibers are prep'd. by treating wool fibers

with **aq. solns.** (A) contg. O3 bubbles with bubble diam. $\leq 10 \mu\text{m}$ by blowing A solns. onto wool fibers in **aq. solns.** or **aq. solns.** contg. peroxides, or pilling-resistant wool fibers are prepd. by first treating wool fibers with **aq. solns.** contg. transition metal salts and treating the fibers with A solns. A knit of wool fibers was simultaneously immersed in an **aq. soln.** contg. 10 g/L Oxone (**potassium monopersulfate**) and treated with an **aq. soln.** contg. O3 bubble with av. diam. $5 \mu\text{m}$ by blowing the soln. onto the fabric and treated with a reducing agent to give a fabric with good pilling resistance.

IT 7447-39-4, Cupric chloride, uses
 (pretreatment with; modification of wool fibers for improved pilling resistance by treating wool fibers with **aq. solns.** contg. ozone bubbles)

RN 7447-39-4 HCA

CN Copper chloride (CuCl_2) (8CI, 9CI) (CA INDEX NAME)

Cl-Cu-Cl

IC ICM D06M011-34
 ICS D06M101-12

CC 40-9 (Textiles and Fibers)

IT Wool
 (modification of wool fibers for improved pilling resistance by treating wool fibers with **aq. solns.** contg. ozone bubbles)

IT Transition metal salts
 (modification of wool fibers for improved pilling resistance by treating wool fibers with **aq. solns.** contg. ozone bubbles)

IT Peroxides, uses
 (treatment agents; modification of wool fibers for improved pilling resistance by treating wool fibers with **aq. solns.** contg. ozone bubbles)

IT Textiles
 (wool; modification of wool fibers for improved pilling resistance by treating wool fibers with **aq. solns.** contg. ozone bubbles)

IT 10028-15-6, Ozone, uses 37222-66-5, Oxone
 (modification of wool fibers for improved pilling resistance by treating wool fibers with **aq. solns.** contg. ozone bubbles)

IT 7447-39-4, Cupric chloride, uses 7722-64-7, Potassium permanganate
 (pretreatment with; modification of wool fibers for improved

pilling resistance by treating wool fibers with **aq.**
solns. contg. ozone bubbles)

IT 79-21-0, Peracetic acid 107-32-4, Performic acid 7722-84-1,
Hydrogen peroxide, uses 7722-86-3, Persulfuric acid
(treatment agent; modification of wool fibers for improved
pilling resistance by treating wool fibers with **aq.**
solns. contg. ozone bubbles)

L37 ANSWER 15 OF 63 HCA COPYRIGHT 2006 ACS on STN

134:58292 Cleansing and sanitizing **composition** for sanitary
appliances. Gazzaniga, Giancarlo; Perazzo, Livia (Deoflor S.p.A.,
Italy). PCT Int. Appl. WO 2000078911 A1 **20001228**, 29 pp.
DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA,
CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,
TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD,
RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES,
FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD,
TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-IT181
19990622.

AB The compn. comprises 10-80% by wt. of .gtoreq.1 anionic surfactant
(Na alkylaryl sulfonate), 0.5-25% by wt. of .gtoreq.1 a 1st nonionic
surfactant (cocodiethanolamide and PEG 400) substantially free from
H2O and having a viscosity of 200-1000 mPs at 70.degree., 0.5-35% by
wt. of an oxidizing agent (Oxone) including .gtoreq.1 peroxide bond
adapted to decomp. in the presence of H2O and an effective amt. of
at least a pH adjusting agent (citric acid) adapted to maintain the
pH of the compn. at such a value so as to stabilize the oxidizing
agent. Advantagously, such compn. may be conformed by extrusion and
has excellent cleansing and scales removing properties and an
effective bactericidal activity, which remains substantially
unaltered over the time.

IT **7647-14-5**, Sodium chloride, uses **7647-15-6**, Sodium
bromide, uses
(release agents; cleansing and sanitizing compn. for sanitary
appliances)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

IC ICM C11D017-00
ICS C11D001-83; C11D003-39; C11D003-395; C11D001-14; C11D001-22;
C11D001-66; C11D001-72

CC 46-6 (Surface Active Agents and Detergents)

ST sanitary appliance cleaning sanitizing compn; anionic nonionic
surfactant cleaning compn; oxidizing agent **potassium
monopersulfate** cleaner

IT **7647-14-5**, Sodium chloride, uses **7647-15-6**, Sodium
bromide, uses
(release agents; cleansing and sanitizing compn. for sanitary
appliances)

L37 ANSWER 16 OF 63 HCA COPYRIGHT 2006 ACS on STN

133:366134 Air and water purification using continuous breakpoint
halogenation and peroxygenation. Martin, Roy; Ferri, Mikel Anthony
(United States Filter Corp., USA). U.S. US 6149819 A
20001121, 8 pp. (English). CODEN: USXXAM. APPLICATION: US
1999-260810 19990302.

AB A process for optimizing the rate of oxidn. using a combination of
halogen, e.g., chlorine donors and peroxygen, e.g.,
potassium monopersulfate is described. The
peroxygen compd. elevates the oxidn.-redn. potential of the body of
water being treated. Simultaneously, a halogen donor is added to
the body of water to maintain a PPM level of free halogen sufficient
to insure sanitization. The feed rates and concns. of both
oxidizers are optimized so as to achieve and maintain the targeted
parameters. A high level of oxidn. is maintained which removes
byproducts from the water and surrounding air.

IT **7647-15-6**, Sodium bromide, biological studies
10058-23-8 28831-12-1, **Sodium
monopersulfate**
(air and water purifn. using continuous breakpoint halogenation
and peroxygenation)

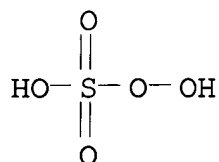
RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

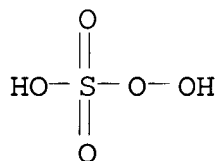
RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
NAME)



● K

RN 28831-12-1 HCA
 CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C02F001-76
 INCL 210743000
 CC 61-5 (Water)
 Section cross-reference(s): 59
 ST continuous breakpoint halogenation peroxygenation water
disinfection air purifn
 IT Water purification
 (**disinfection**; air and water purifn. using continuous
 breakpoint halogenation and peroxygenation)
 IT 87-90-1, Trichloroisocyanuric acid 1313-60-6, Sodium peroxide
 2782-57-2, Dichloroisocyanuric acid 7632-04-4, Sodium perborate
7647-15-6, Sodium bromide, biological studies 7681-52-9,
 Sodium hypochlorite 7722-84-1, Hydrogen peroxide, biological
 studies 7727-21-1, Potassium peroxy disulfate 7727-54-0,
 Ammonium peroxydisulfate 7775-27-1, Sodium peroxydisulfate
 7778-54-3, Calcium hypochlorite **10058-23-8** 12653-78-0,
 Potassium perborate 13840-33-0, Lithium hypochlorite 17014-71-0,
 Potassium peroxide **28831-12-1**, Sodium
monopersulfate 40004-85-1
 (air and water purifn. using continuous breakpoint halogenation
 and peroxygenation)

L37 ANSWER 17 OF 63 HCA COPYRIGHT 2006 ACS on STN

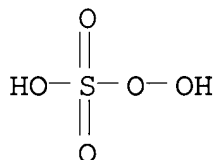
133:310902 Electroactive polymer for corrosion inhibition of aluminum alloys. Yang, S. C.; Brown, R.; Racicot, R.; Lin, Y.; McClarnon, F. (Department of Chemistry, University of Rhode Island, Kingston, RI, 02881, USA). Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 41(2), 1776-1777 (English) 2000. CODEN: ACPPAY. ISSN: 0032-3934. Publisher: American Chemical Society, Division of Polymer Chemistry.

AB A template-guided synthetic method was used to prep. inter-polymer complexes of polyaniline and poly(acrylic acid) (PAA) or poly(vinylmethyl ether-maleic acid) (PVME-MLA) by **mixing** an **aq. soln.** of aniline and PAA and PVME-MLA whereby aniline monomer binds to the polymer via H bonding and electrostatic interactions. After acidification, bound aniline is polymd. by addn. of an oxidant (sodium persulfate, H₂O₂) to obtain a mol. complex of polyaniline and PAA or PVME-MLA. The complexes were used as additives in waterborne epoxy primers and tested on Al alloys, applied by electrophoretic coating process. Uniform coatings (0.8 mil thickness) on AA-7075, AA-2024 and AA-6061 alloys were obtained and were used for salt-spray, **seawater** immersion, and filiform corrosion tests. The conducting polymers are effective in inhibiting corrosion with small amt. of conducting polymer as additive to the epoxy primer.

IT 15593-29-0, Sodium persulfate
(polymn. oxidant; prepn. of polyaniline in acrylic and vinyl polymer matrix and use of complex as corrosion inhibitor in epoxy primers)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

CC 42-4 (Coatings, Inks, and Related Products)
Section cross-reference(s): 76

IT 7722-84-1, Hydrogen peroxide, reactions 15593-29-0, Sodium persulfate
(polymn. oxidant; prepn. of polyaniline in acrylic and vinyl polymer matrix and use of complex as corrosion inhibitor in epoxy primers)

L37 ANSWER 18 OF 63 HCA COPYRIGHT 2006 ACS on STN

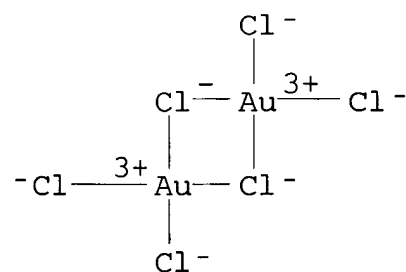
133:276365 Ziprasidone metabolite **compositions** for the treatment of neuroleptic and related disorders. Barberich, Timothy J.; Rubin, Paul D.; Yelle, William E. (Sepracor Inc., USA). PCT Int. Appl. WO 2000059489 A2 **20001012**, 27 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US8707 20000331. PRIORITY: US 1999-PV127939 19990406.

AB The invention relates to novel methods using, and pharmaceutical compns. comprising ziprasidone metabolites. The methods and compns. of the invention are suitable for the treatment of neuroleptic and related disorders. Ziprasidone sulfoxide and ziprasidone sulfone are prepd., their 5-HT₂ and dopamine D₂ receptor activity studied, and dosage forms contg. the compds. are presented.

IT **21563-00-8**, Gold chloride
(ziprasidone metabolite compns. for the treatment of neuroleptic and related disorders)

RN 21563-00-8 HCA

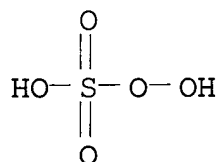
CN Gold, di-.mu.-chlorotetrachlorodi- (8CI, 9CI) (CA INDEX NAME)



IT **10058-23-8**, Potassium hydrogen persulfate
(ziprasidone metabolite compns. for the treatment of neuroleptic and related disorders)

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

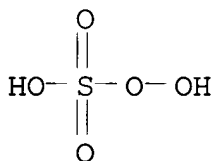
- IC ICM A61K031-00
 CC 1-11 (Pharmacology)
 Section cross-reference(s): 28, 63
 IT **21563-00-8**, Gold chloride
 (ziprasidone metabolite compns. for the treatment of neuroleptic
 and related disorders)
 IT 7681-52-9, Sodium hypochlorite 7697-37-2, Nitric acid, reactions
 7722-64-7, Potassium permanganate 7722-84-1, Hydrogen peroxide,
 reactions 7778-54-3, Calcium hypochlorite 7790-28-5, Sodium
 periodate **10058-23-8**, Potassium hydrogen persulfate
 10139-51-2, Ceric ammonium nitrate 11138-47-9, Sodium perborate
 87691-87-0, 1-(1,2-Benzisothiazol-3-yl)piperazine 118289-55-7,
 6-Chloro-5-(2-chloroethyl)oxindole
 (ziprasidone metabolite compns. for the treatment of neuroleptic
 and related disorders)
- L37 ANSWER 19 OF 63 HCA COPYRIGHT 2006 ACS on STN
 133:59243 Process for manufacture of water-soluble anionic flocculant
 using ionizing radiation, electron beam, and microwave radiation.
 Dragusin, Mitica (S.C. Polirad S.R.L., Bucuresti, Rom.). Rom. RO
 112356 B1 **19970829**, 6 pp. (Romanian). CODEN: RUXXA3.
 APPLICATION: RO 1994-9401139 19940704.
- AB The acrylamide copolymer flocculants in the form of gel granules
 contain 40-50% acrylamide; 35% acrylic acid or sodium acrylate
 monomers and 8-10% anhyd. Na₂SO₄ or 6-8% Na₂CO₃ coupled with 2-4%
 monosodium phosphate; 0.01-0.02% sodium formate; 0.01-0.02% sodium
 or ammonium persulfate; 0.01-0.02% sodium EDTA; 0.1-0.3% ethoxylated
 nonylphenol; and the balance, water. Alternatively, the gel
 granules comprise the above copolymer components or are **aq**
. solns. of copolymers of 15-35% acrylic acid; 3-7% vinyl
 acetate; and/or 1.5-3.5% acrylamide with 0.01-0.02% ammonium or
 potassium persulfate; 0.1-0.4% sodium formate and the balance
water; or **solns.** of 18-20% acrylamide; 0.3-0.5%
 iso-Pr alc.; 0.01-0.03% sodium or ammonium persulfate; and the
 balance water. The copolymers have mol. wt. of 15,000,000 viscosity
 of 8-15 dL/g, Huggins const. of 0.15-0.45, the gel granules in dild.

aq. soln. are stable for up to 2 yr. The copolymers are obtained by irradiation of the monomer soln. with .gamma.-rays from a ⁶⁰Co source, dose of 10,000 Ci and adsorbed radiation of 3-10 KGy/h, electron beam irradiation using a 3-6 mEV source, and/or microwave irradiation with 30-80 W/cm³ energy source; the polymerization mechanism is radical-thermochem. An **aq. soln.** of acrylamide, acrylic acid, **NaCl**, Na formate, Na EDTA, and iso-Pr alc. was irradiated with .gamma.-rays to obtain anionic copolymer sol. in water and suitable for use in extrn. metallurgy, petroleum extrn., textile industry, etc. The obtained polymers were granulated using a 3-point 0.6-1 kW microwave source, producing 2-3 mm granules; these granules were subjected to heat treatment under microwave irradiation at temps. below 80.degree.. The Na₂SO₄ and Na₂CO₃ are used to prevent agglomeration of gel granules upon handling and storage. The gel granules can be packaged in plastic bags for shipment and storage.

IT 15593-29-0, Sodium persulfate
 (initiator; process for manuf. of water-sol. acrylic anionic flocculants by combination of ionizing radiation and electron beam and microwave radiation)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



● 2 Na

IT 7647-14-5, Sodium chloride, uses
 (process for manuf. of water-sol. acrylic anionic flocculants by combination of ionizing radiation and electron beam and microwave radiation)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

IC ICM C08F020-02
 ICS C08F020-56

CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 46

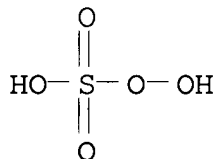
- IT 7727-21-1, Potassium persulfate 7727-54-0, Ammonium persulfate
15593-29-0, Sodium persulfate
(initiator; process for manuf. of water-sol. acrylic anionic
flocclulants by combination of ionizing radiation and electron
beam and microwave radiation)
- IT 67-63-0, Isopropyl alcohol, uses 141-53-7, Sodium formate
7558-80-7, Monosodium phosphate 7647-14-5, Sodium
chloride, uses 27986-36-3, Ethylene glycol nonylphenyl ether
(process for manuf. of water-sol. acrylic anionic flocclulants by
combination of ionizing radiation and electron beam and microwave
radiation)
- L37 ANSWER 20 OF 63 HCA COPYRIGHT 2006 ACS on STN
- 132:241718 **Composition** and method for whitening teeth without
damaging soft tissue. McLaughlin, Gerald G. (USA). PCT Int. Appl.
WO 2000016737 A1 20000330, 32 pp. DESIGNATED STATES: W:
AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI,
FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.
(English). CODEN: PIXXD2. APPLICATION: WO 1999-US21371 19990917.
PRIORITY: US 1998-100779 19980918.
- AB A compn. is provided for whitening a tooth in a dental arch,
including at least 30 % of potassium hydrogen peroxymonopersulfate
(2KHSO5.KHSO4.K2SO4) in a slurry or in a dry form, wherein the
compn. does not cause damage visible to the naked eye to a soft
tissue during a treatment period. A compn. is also provided for
whitening a tooth including at least 30 % of potassium hydrogen
peroxymonopersulfate (2KHSO5.KHSO4.K2SO4) in a slurry or dry form,
wherein the compn. does not include a peroxide bleaching agent. In
another embodiment, a method is provided for whitening a tooth in a
dental arch. The method includes (1) contacting the dental arch
with a compn. comprising at least 30 % of potassium hydrogen
peroxymonopersulfate sulfate (2KHSO5.KHSO4.K2SO4) in a slurry or in
an **aq. soln.**, wherein the pH of the compn. is
adjusted from about pH 5.0 to about pH 8.5, and wherein the
contacting does not cause damage visible to the naked eye to a soft
tissue of the dental arch during a treatment period; and (2)
removing the compn. from the dental arch. The method also includes
contacting the tooth with a compn. including a peroxide bleaching
agent, wherein the agent generates hydrogen peroxide as 15 % or less
of the compn.; and removing the compn. including a peroxide
bleaching agent. A kit is also provided for whitening teeth
including a carrier means being compartmentalized to receive in
close confinement therein one or more containers including a first

container contg. potassium hydrogen peroxymonopersulfate sulfate (2KHSO5.KHSO4.K2SO4) and an agent to adjust the pH from about 5.0 to about 8.5.

IT 7681-49-4, Sodium fluoride, biological studies
 10361-76-9, Potassium peroxymonosulfate 10476-85-4
 , Strontium chloride 28831-12-1, Sodium persulfate
 (tooth-whitening compns. contg. potassium peroxymonopersulfate
 and beaching agents and activity enhancers)
 RN 7681-49-4 HCA
 CN Sodium fluoride (NaF) (9CI) (CA INDEX NAME)

F—Na

RN 10361-76-9 HCA
 CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)

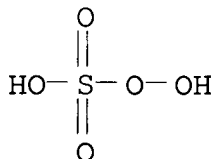


● 2 K

RN 10476-85-4 HCA
 CN Strontium chloride (SrCl2) (9CI) (CA INDEX NAME)

Cl—Sr—Cl

RN 28831-12-1 HCA
 CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM A61K007-20
CC 62-7 (Essential Oils and Cosmetics)
IT 50-81-7, L-Ascorbic acid, biological studies 56-81-5,
1,2,3-Propanetriol, biological studies 57-55-6, 1,2-Propanediol,
biological studies 73-31-4 77-92-9, biological studies
94-36-0, Benzoyl peroxide, biological studies 124-43-6, Carbamide
peroxide 150-13-0, p-Aminobenzoic acid 151-21-3, Sodium lauryl
sulfate, biological studies 546-93-0, Magnesium carbonate
1305-62-0, Calcium hydroxide, biological studies 1533-45-5
3811-04-9, Potassium chlorate 4680-78-8, Guinea green 7128-64-5,
Uvitex-OB 7235-40-7, .beta.-Carotene 7601-54-9, Trisodium
phosphate 7631-86-9, Silica, biological studies 7632-04-4,
Sodium perborate 7646-93-7, Potassium bisulfate **7681-49-4**
, Sodium fluoride, biological studies 7722-84-1, Hydrogen
peroxide, biological studies 7727-54-0, Ammonium persulfate
7757-79-1, Potassium nitrate, biological studies 7778-80-5,
Potassium sulfate, biological studies 9000-01-5, Arabic gum
9003-04-7 9004-32-4, Carboxymethyl cellulose 9004-62-0,
Hydroxyethyl cellulose 9005-64-5, Tween 20 **10361-76-9**,
Potassium peroxymonosulfate **10476-85-4**, Strontium chloride
13463-67-7, Titania, biological studies 15630-89-4, Sodium
percarbonate 16470-24-9 25155-30-0, Sodium dodecyl benzene
sulfonate 25608-12-2, Potassium polyacrylate **28831-12-1**,
Sodium persulfate 55001-87-1 106392-12-5, Pluronic 127
187820-94-6, Surfynol 485W
(tooth-whitening compns. contg. potassium peroxymonopersulfate
and beaching agents and activity enhancers)

L37 ANSWER 21 OF 63 HCA COPYRIGHT 2006 ACS on STN

132:170885 Methods and **compositions** for whitening teeth
comprising non-peroxide ionic bleaching compound. McLaughlin,
Gerald G. (USA). PCT Int. Appl. WO 2000009079 A1 **20000224**
, 22 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG,
BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY,
DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT,
SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO
1999-US17949 19990810. PRIORITY: US 1998-96047 19980811.

AB The invention provides a compn. for whitening teeth, using a
non-peroxide ionic bleaching compd. The compns. are made into
various consistencies and forms such as pastes, gels, or solns. such
that they can be placed in contact with teeth or a dentifrice to be
treated. Ions and radicals in the materials penetrate into the
tooth structure and cause a whitening effect both on the surface and

below the surface. A method for whitening teeth by providing a bleaching agent or compns. to teeth or a dentifrice to be treated is also provided. A mixt. of **potassium monopersulfate** was mixed with an equal amt. of sodium fluoride into a slurry and placed on a human tooth for a period of one h., and as the slurry dried upon the teeth it was re-wetted. At the end of one hour the mixt. was removed and the tooth was rinsed with fresh water. The amt. of whitening exhibited was approx. equal to that expected from 2 wk regimen of wearing custom trays with peroxide gel.

IT 7681-49-4, Sodium fluoride, biological studies

15593-29-0, Sodium persulfate 25482-78-4

(methods and compns. for whitening teeth comprising non-peroxide ionic bleaching compd.)

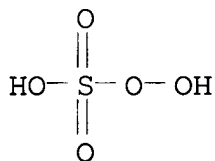
RN 7681-49-4 HCA

CN Sodium fluoride (NaF) (9CI) (CA INDEX NAME)

F⁻ Na

RN 15593-29-0 HCA

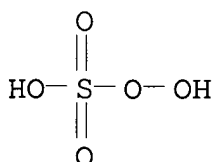
CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●₂ Na

RN 25482-78-4 HCA

CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●_x K

IC ICM A61K007-20
CC 62-7 (Essential Oils and Cosmetics)
IT 79-21-0, Peracetic acid 97-53-0, Eugenol 1406-18-4, Vitamin e
1758-73-2, Thiourea dioxide **7681-49-4**, Sodium fluoride,
biological studies 7722-86-3, Peroxymonosulfuric acid 7727-21-1,
Potassium persulfate 7757-79-1, Potassium nitrate, biological
studies 7775-14-6, Sodium hydrosulfite 7782-44-7, Oxygen,
biological studies **15593-29-0**, Sodium persulfate
16940-66-2, Sodium borohydride **25482-78-4**
(methods and compns. for whitening teeth comprising non-peroxide
ionic bleaching compd.)

L37 ANSWER 22 OF 63 HCA COPYRIGHT 2006 ACS on STN
130:56942 Methods for treating recreational waters with low levels of
oxidizing halogens and hydrogen peroxides. Brown, Geoffrey A.
(Great Lakes Chemical Corporation, USA). PCT Int. Appl. WO 9856721
A1 **19981217**, 18 pp. DESIGNATED STATES: W: AU, CA; RW:
AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US10607
19980526. PRIORITY: US 1997-874105 19970612.

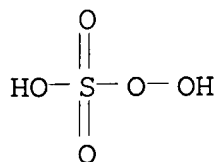
AB Methods for treating recreational waters with low levels of
oxidizing halogens and hydrogen peroxide are disclosed, wherein the
halogen-contg. compd. is provided with an erosion control agent such
as glycoluril, and the hydrogen peroxide is provided with a hydrogen
peroxide stabilizer such as a polyquaternary ammonium compd. Addnl.
stabilizers to chelate metals and increase the half life of peroxide
in **aq. solns.** may also be added.

IT **7647-15-6**, Sodium bromide, biological studies
15593-29-0, Sodium persulfate
(methods for treating recreational waters with low levels of
oxidizing halogens and hydrogen peroxides)

RN 7647-15-6 HCA
CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

RN 15593-29-0 HCA
CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

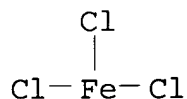
IC ICM C02F001-50
 CC 61-5 (Water)
 IT 60-00-4, biological studies 87-90-1 496-46-8, Glycoluril
 1330-43-4, Sodium tetraborate 2782-57-2, Dichloroisocyanurate
 2893-78-9, Sodium dichloroisocyanurate 3313-92-6, Sodium
 percarbonate **7647-15-6**, Sodium bromide, biological studies
 7681-52-9, Sodium hypochlorite 7722-84-1, Hydrogen peroxide
 (H₂O₂), biological studies 7726-95-6, Bromine, biological studies
 7727-21-1 7775-27-1, Sodium persulfate 7778-54-3, Calcium
 hypochlorite 7782-50-5, Chlorine, biological studies 10043-01-3,
 Aluminum sulfate 11138-47-9, Sodium perborate 13840-33-0,
 Lithium hypochlorite **15593-29-0**, Sodium persulfate
 31512-74-0 107846-11-7, Bromochlorodimethylhydantoin
 (methods for treating recreational waters with low levels of
 oxidizing halogens and hydrogen peroxides)

L37 ANSWER 23 OF 63 HCA COPYRIGHT 2006 ACS on STN
 129:99767 Method for water purification with oxides of chlorine.
 Rafter, John D.; Grenier, Joseph W.; Denkewicz, Raymond P., Jr.
 (Fountainhead Technologies, Inc., USA). PCT Int. Appl. WO 9830502
 A1 **19980716**, 17 pp. DESIGNATED STATES: W: AU, CA; RW:
 AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE.
 (English). CODEN: PIXXD2. APPLICATION: WO 1997-US22717 19971210.
 PRIORITY: US 1997-783558 19970114.

AB A method for purifying water includes contacting water contg. an
 oxide of chlorine, such as chlorine dioxide, chlorite, or chlorate,
 with a **water** purifn. **compn.** that includes a
 Group 11 or Group 12 metal such as silver, copper, or zinc.

IT **7705-08-0**, Ferric chloride, biological studies
10043-52-4, Calcium chloride, biological studies
10361-76-9, Potassium peroxymonosulfate
 (method for water purifn. with oxides of chlorine)

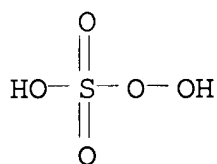
RN 7705-08-0 HCA
 CN Iron chloride (FeCl₃) (8CI, 9CI) (CA INDEX NAME)



RN 10043-52-4 HCA
 CN Calcium chloride (CaCl₂) (9CI) (CA INDEX NAME)



RN 10361-76-9 HCA
 CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



●2 K

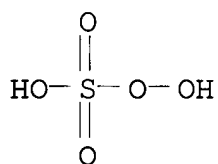
IC ICM C02F001-50
 ICS C02F001-76; C02F001-72
 CC 61-5 (Water)
 ST **disinfection** water purifn chlorine oxide
 IT Water purification
 (**disinfection**; method for water purifn. with oxides of
 chlorine)
 IT 367-51-1, Sodium thioglycolate 6484-52-2, Ammonium nitrate,
 biological studies 7429-90-5, Aluminum, biological studies
 7439-89-6, Iron, biological studies 7439-96-5, Manganese,
 biological studies 7440-22-4, Silver, biological studies
 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological
 studies 7631-99-4, Sodium nitrate, biological studies
7705-08-0, Ferric chloride, biological studies 7758-11-4,
 Potassium monohydrogen phosphate 7772-98-7, Sodium thiosulfate
 10034-99-8, Magnesium sulfate heptahydrate **10043-52-4**,
 Calcium chloride, biological studies 10049-04-4, Chlorine oxide
 (ClO₂) 10124-37-5, Calcium nitrate **10361-76-9**, Potassium
 peroxydisulfate 12125-02-9, Ammonium chloride, biological
 studies 14866-68-3, Chlorate 14998-27-7, Chlorite 37222-66-5,
 Oxone

(method for water purifn. with oxides of chlorine)

L37 ANSWER 24 OF 63 HCA COPYRIGHT 2006 ACS on STN
 129:99766 Water treatment method. Brown, Geoffrey A.; Lines, Mary L.;
 Miller, James J. (Bio-Lab, Inc., USA). U.S. US 5783092 A
19980721, 8 pp. (English). CODEN: USXXAM. APPLICATION: US
 1997-819731 19970318.
 AB A method of treating water by adding to the water a shelf-stable
 compn. of H2O2 peroxide and a polyquaternary ammonium compd.,
 followed by intermittent treatment with Cl-, Br- or O-releasing
 compds.
 IT **7647-15-6**, Sodium bromide, biological studies
10058-23-8
 (swimming pool water treatment method)
 RN 7647-15-6 HCA
 CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br- Na

RN 10058-23-8 HCA
 CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
 NAME)



● K

IC ICM C02F001-50
 INCL 210759000
 CC 61-5 (Water)
 ST swimming pool **disinfection** water purifn
 IT Water purification
 (**disinfection**; swimming pool water treatment method)
 IT 87-90-1 106-89-8, 1-Chloro-2,3-epoxypropane, biological studies
 1192-27-4 2893-78-9, Sodium dichloroisocyanurate 5225-86-5
7647-15-6, Sodium bromide, biological studies 7681-52-9,
 Sodium hypochlorite 7722-84-1, Hydrogen peroxide (H2O2),
 biological studies 7726-95-6, Bromine, biological studies
 7778-54-3, Calcium hypochlorite 7782-50-5, Chlorine, biological
 studies **10058-23-8** 13840-33-0, Lithium hypochlorite

31512-74-0 32289-58-0

(swimming pool water treatment method)

L37 ANSWER 25 OF 63 HCA COPYRIGHT 2006 ACS on STN

126:252698 Bleaching **compositions** containing polyoxometalates as bleaching catalysts. Reinhardt, Gerd; Friderichs, Vera; Scharbert, Bernd; Schulz, Rolf Peter; Krebs, Bernt; Boehner, Rainer; Thuelig, Christian (Hoechst A.-G., Germany). Ger. Offen. DE 19530786 A1 **19970227**, 9 pp. (German). CODEN: GWXXBX.

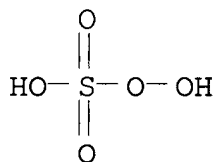
APPLICATION: DE 1995-19530786 19950822.

AB Qq[AaXxMmOyZz(H2O)b].cH2O (Q = .gtoreq.1 of H, Li, K, Na, Rb, Cs, Mg, Sr, Ba, Al, PR1R2R3R4, or NR1R2R3R4; A = .gtoreq.1 of Mn, Ru, V, Ti, Zr, Cr, Fe, Co, Cu, Zn, Ni, Re, or Os; X = .gtoreq.1 of Sb, S, Se, Te, Bi, Ga, B, P, Si, Ge, F, Cl, Br, or I; M = .gtoreq.1 of Mo, W, Nb, Ta, or V; Z = .gtoreq.1 of OH-, F-, Cl-, I-, N3-, NO3-, ClO4-, NCS-, SCN-, PF6-, RSO3-, RSO4-, CF3SO3-, BR4-, BF4-, or MeCO2-; R, R1, R2, R3, R4 = H, C1-20 alkyl, C5-8 cycloalkyl, or C6-24 aryl; q = 1-60; a, x, z = 0-10, m = 0.5-60, y = structure-/charge-compensating no. of O atoms, b, c = 0-50) are useful as bleaching catalysts. A typical catalyst [(NH4)10(Mn3Sb2W19O68)] was manufd. by slowly adding a soln. of 2.5 g Sb2O3 in 30 mL HCl to a soln. contg. 50 g Na2WO4.2H2O in 200 mL **water**, adding a **soln.** contg. 5 g MnCl2.4H2O in 100 mL water and Na2CO3 to adjust the pH to 7.5, stirring 10 min at 50.degree., and adding a soln. contg. 2 g NH4Cl in 20 mL water.

IT **10361-76-9**, Potassium peroxomonosulfate
(bleaching agent; bleaching compns. contg. polyoxometalates as bleaching catalysts)

RN 10361-76-9 HCA

CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

IT **7447-40-7DP**, Potassium chloride, reaction products with sodium tungstate, selenic acid, and manganese salts
7647-17-8DP, Cesium chloride, reaction products with sodium tungstate, selenic acid, and manganese salts
(bleaching compns. contg. polyoxometalates as bleaching

catalysts)

RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7647-17-8 HCA

CN Cesium chloride (CsCl) (7CI, 8CI, 9CI) (CA INDEX NAME)

Cl-Cs

IT 7773-01-5, Manganese chloride

(catalyst precursor; bleaching compns. contg. polyoxometalates as bleaching catalysts)

RN 7773-01-5 HCA

CN Manganese chloride (MnCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl-Mn-Cl

IC ICM C11D003-395

ICS C11D003-39

CC 46-5 (Surface Active Agents and Detergents)

IT 7722-84-1, Hydrogen peroxide, uses 10361-76-9, Potassium peroxomonosulfate 11138-47-9, Sodium perborate 15630-89-4, Sodium percarbonate 112436-71-2, Sodium benzyloxybenzenesulfonate 128275-31-0

(bleaching agent; bleaching compns. contg. polyoxometalates as bleaching catalysts)

IT 638-38-0DP, Manganese acetate, reaction products with sodium tungstate, selenic acid, and cesium chloride 7447-40-7DP, Potassium chloride, reaction products with sodium tungstate, selenic acid, and manganese salts 7647-17-8DP, Cesium chloride, reaction products with sodium tungstate, selenic acid, and manganese salts 7783-08-6DP, Selenic acid, reaction products with sodium tungstate, manganese salts, and cesium chloride 10377-66-9DP, Manganese nitrate, reaction products with sodium tungstate, selenic acid, and cesium chloride 13472-45-2DP, Sodium tungstate, reaction products with selenic acid, manganese salts, and cesium chloride 188623-16-7P 188646-80-2P 188646-81-3P

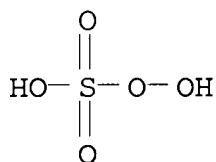
(bleaching compns. contg. polyoxometalates as bleaching catalysts)

IT 1309-64-4, Antimony oxide, reactions 7773-01-5, Manganese chloride 7783-00-8, Selenious acid 12125-02-9, Ammonium chloride, reactions 13472-45-2, Sodium tungstate

(catalyst precursor; bleaching compns. contg. polyoxometalates as

bleaching catalysts)

- L37 ANSWER 26 OF 63 HCA COPYRIGHT 2006 ACS on STN
 124:297174 Porous cement products, their manufacture, and the architectural boards obtained. Shioji, Naotake; Okamura, Kazuhiro; Shimomura, Tadao (Nippon Catalytic Chem Ind, Japan). Jpn. Kokai Tokkyo Koho JP 08012459 A2 **19960116** Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-142003 19940623.
- AB The products comprise porous cement main bodies having multiple pores, and contain decompd. water-absorbing resins (smaller than the pores) in the pores. The manuf. of the products comprises curing a **mixt.** contg. an **aq.** cement slurry and aq. water-absorbing resin gels and decompg. the resin during or after curing. The products and boards have high cracking resistance upon exposure to water, and do not get moldy.
- IT **31499-96-4**, Peroxymonosulfuric acid sodium **salt** (**water**-absorbing resin-decomp. agent; in porous fungicidal cement board manuf.)
- RN 31499-96-4 HCA
- CN Peroxymonosulfuric acid, sodium salt (8CI, 9CI) (CA INDEX NAME)



●x Na

- IC ICM C04B038-00
 ICS E04C002-04
- CC 58-4 (Cement, Concrete, and Related Building Materials)
 Section cross-reference(s): 38
- IT 50-81-7, Ascorbic acid, uses 89-65-6, Isoascorbic acid 134-03-2, Sodium ascorbate 1310-73-2, Sodium hydroxide, uses 6381-77-7, Sodium isoascorbate 7601-89-0, Sodium perchlorate 7631-90-5, Sodium hydrogensulfite 7722-84-1, Hydrogen peroxide, uses **31499-96-4**, Peroxymonosulfuric acid sodium **salt** (**water**-absorbing resin-decomp. agent; in porous fungicidal cement board manuf.)
- L37 ANSWER 27 OF 63 HCA COPYRIGHT 2006 ACS on STN
 124:148664 Shrinkproofing keratin fibers using nonchlorine-based oxidizing agents. Hojo, Hiroshi (Japan). Eur. Pat. Appl. EP 687764 A2 **19951220**, 9 pp. DESIGNATED STATES: R: BE, DE, ES, FR,

GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1995-108640
19950606. PRIORITY: JP 1994-125092 19940607; JP 1994-293502
19941128; JP 1995-78633 19950404.

AB In the title process, keratin fibers (e.g., wool) are treated with
aq. solns. contg. transition metal salts, squeezed
to a decreased H₂O content, and treated with oxidizing agents for
removal of keratin surface layer from the fibers. Wool slivers were
treated with an **aq. soln.** contg. Cu₂SO₄ for 4
min at 20.degree., squeezed to H₂O content 60%, treated with an
aq. soln. contg. 30% H₂O₂ at pH 9.0 and
65.degree., washed, dried, and made into a knitted sweater
exhibiting shrinkage 3% after washing (JIS L-0217-103) for 20
cycles.

IT **7646-79-9**, Cobalt chloride, uses **11132-78-8**,
Manganese chloride
(catalyst; for shrinkproofing wool using nonchlorine-based
oxidizing agents)

RN 7646-79-9 HCA

CN Cobalt chloride (CoCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl-Co-Cl

RN 11132-78-8 HCA

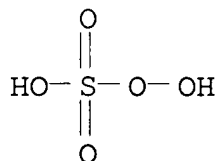
CN Manganese chloride (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
Cl	x	22537-15-1
Mn	x	7439-96-5

IT **28831-12-1**, Oxon
(oxidn. agent; for shrinkproofing wool using transition metal
catalysts)

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM D06M011-50
CC 40-9 (Textiles and Fibers)
IT 373-02-4, Nickel acetate **7646-79-9**, Cobalt chloride, uses
7720-78-7, Ferrous sulfate 7758-98-7, Copper sulfate, uses
11132-78-8, Manganese chloride 17599-81-4, Cuprous sulfate
(catalyst; for shrinkproofing wool using nonchlorine-based
oxidizing agents)
IT 7722-84-1, Hydrogen peroxide, reactions **28831-12-1**, Oxon
(oxidn. agent; for shrinkproofing wool using transition metal
catalysts)

L37 ANSWER 28 OF 63 HCA COPYRIGHT 2006 ACS on STN
124:97191 **Disinfecting** resins. Dalven, Israel; Frommer, Moshe
A. (Purotech Ltd., Israel). PCT Int. Appl. WO 9531989 A1
19951130, 15 pp. DESIGNATED STATES: W: AU, BG, CA, CZ, ES,
FI, HU, JP, KR, LK, MX, NO, NZ, PL, RO, RU, SK, US; RW: AT, BE, CH,
DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English).
CODEN: PIXXD2. APPLICATION: WO 1995-US6421 19950523. PRIORITY: IL
1994-109772 19940525.

AB A process for the prodn. or regeneration of a bactericidal resin
comprises reacting a strong base granular anion exchange resin with
a sol. iodide, followed by a reaction with a sol. bromide equiv. to
about 30-40 mol% of the iodide on the resin and with an oxidant
which converts more than 80% of the bromide to bromine and from
about 25-45% of the iodide to iodine, followed by addn. of 0.5-1.7
equivs. of iodine per equiv. resin active sites, and washing with
water. Preferred are persulfate oxidizers and a styrene-DVB ion
exchange resin.

IT **7681-11-0**, Potassium iodide (KI), reactions
7758-02-3, Potassium bromide (KBr), reactions
10361-76-9, Potassium peroxymonosulfate
(bactericidal resins for water **disinfection**)

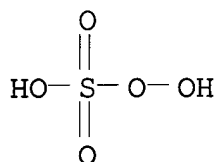
RN 7681-11-0 HCA
CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)

I-K

RN 7758-02-3 HCA
CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

RN 10361-76-9 HCA
CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX
NAME)



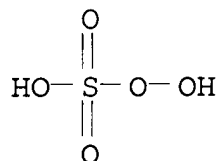
● 2 K

- IC ICM A61K031-74
ICS A01N059-22
- CC 61-5 (Water)
Section cross-reference(s): 38
- ST water **disinfection** bactericidal anion exchanger
- IT Anion exchangers
Oxidizing agents
Sterilization and Disinfection
Water purification
(bactericidal resins for water **disinfection**)
- IT 7553-56-2, Iodine, biological studies 7726-95-6, Bromine, biological studies
(bactericidal resins for water **disinfection**)
- IT 9003-70-7, Divinyl benzene-styrene copolymer
(bactericidal resins for water **disinfection**)
- IT 7732-18-5P, Water, preparation
(bactericidal resins for water **disinfection**)
- IT 7646-93-7, Potassium bisulfate **7681-11-0**, Potassium iodide (KI), reactions 7727-21-1, Potassium persulfate **7758-02-3**, Potassium bromide (KBr), reactions 7778-80-5, Potassium sulfate, reactions **10361-76-9**, Potassium peroxymonosulfate 37222-66-5, Oxone
(bactericidal resins for water **disinfection**)
- L37 ANSWER 29 OF 63 HCA COPYRIGHT 2006 ACS on STN
122:169613 Sanitizer for swimming pools, spas, and hot tubs. Gay, Walter A. (Olin Corp., USA). U.S. US 5373025 A **19941213**, 9 pp. Cont.-in-part of U.S. 5,258,409. (English). CODEN: USXXAM. APPLICATION: US 1993-75446 19930614. PRIORITY: US 1992-840411 19920224.
- AB A sanitizer compn. comprises a bactericidal effective amt. of (a) a quaternary ammonium compd. selected from the group consisting of (hydrogenated tallow) 2-ethylhexyl di-Me ammonium salt, dicoco di-Me ammonium salt, and mixts. thereof; and (b) a Cu (II) ion source. The compn. also contains an oxidizer (H2O2, Oxone).
- IT **10361-76-9**, Potassium peroxymonosulfate

(oxidizer; sanitizer for swimming pools, spas, and hot tubs)

RN 10361-76-9 HCA

CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

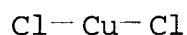
IT 7447-39-4, Copper chloride, biological studies

11129-27-4, Copper bromide

(sanitizer for swimming pools, spas, and hot tubs)

RN 7447-39-4 HCA

CN Copper chloride (CuCl₂) (8CI, 9CI) (CA INDEX NAME)



RN 11129-27-4 HCA

CN Copper bromide (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
Br	x	10097-32-2
Cu	x	7440-50-8

IC ICM C07C211-63

ICS C07C211-64; A01N033-12; A61K031-14

INCL 514642000

CC 61-5 (Water)

ST swimming pool **water** sanitizer **compn**; spa
water sanitizer **compn**; copper salt swimming pool
sanitizer

IT Bactericides, **Disinfectants**, and Antiseptics
Swimming pools

(sanitizer for swimming pools, spas, and hot tubs)

IT 7722-84-1, Hydrogen peroxide, biological studies **10361-76-9**

, Potassium peroxydisulfate 37222-66-5, Oxone

(oxidizer; sanitizer for swimming pools, spas, and hot tubs)

IT 142-71-2, Copper acetate 544-19-4, Copper formate 1184-64-1,

Copper carbonate 3251-23-8 **7447-39-4**, Copper chloride, biological studies 7758-98-7, Copper sulfate, biological studies 10402-15-0, Copper citrate **11129-27-4**, Copper bromide 14067-34-6, Copper benzoate 17017-98-0, Acetic acid, trichloro-, copper(2+) salt 31089-39-1, Copper triethanolamine 36386-77-3, Carbonic acid, copper(2+) salt 51395-10-9, Copper EDTA (sanitizer for swimming pools, spas, and hot tubs)

L37 ANSWER 30 OF 63 HCA COPYRIGHT 2006 ACS on STN

122:141978 Method for the enhancement of polyguanide based **disinfection** systems and for conversion to an alternative **disinfection** systems. Hamilton, Jock (USA). PCT Int. Appl. WO 9426955 A1 **19941124**, 19 pp. DESIGNATED STATES: W: AU, BR, CA, JP; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US5822 19940519. PRIORITY: US 1993-64483 19930519; US 1994-225422 19940408.

AB The invention discloses a compn. and method for the enhancement of polyguanide-based water **disinfection** systems and for conversion of such systems to alternative water **disinfecting** systems if desired. The method includes the addn. of an enhancing or conversion agent selected from a halogen salt, bromohydantoin and a chlorobromohydantoin in an amt. to provide a concn. of approx. from 1 to 50 ppm. Sodium borate and/or polyphosphate may also be added to the system to improve the effectiveness of the enhancing agent. The system may be converted to an alternative water **disinfecting** system by the addn. of a **disinfecting** agent selected from the group consisting of chlorine, copper, silver, quaternary ammonium compds., and polyquaternary ammonium compds., which may be released into the water at a rate of 0.01-1 oz per h per 10,000 gal of water for a period until conversion is complete.

IT **7647-15-6**, Sodium bromide, biological studies **10058-23-8**

(in systems for **disinfection** of swimming pools)

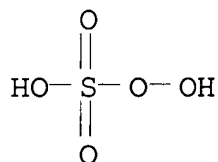
RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 10058-23-8 HCA

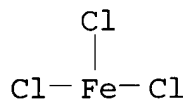
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

- IC ICM C23F011-00
 CC 61-5 (Water)
 ST swimming pool **disinfection** system; **disinfection**
 system swimming pool
 IT Polyphosphoric acids
 (bromine-contg.; in systems for **disinfection** of
 swimming pools)
 IT Swimming pools
 (systems for water **disinfection** in)
 IT 461-72-3D, Hydantoin, halo derivs. 7440-22-4, Silver, biological
 studies 7440-50-8, Copper, biological studies **7647-15-6**,
 Sodium bromide, biological studies 7722-84-1, Baquashock,
 biological studies 7782-50-5, Chlorine, biological studies
 10043-35-3D, Boric acid, sodium salt **10058-23-8**
 (in systems for **disinfection** of swimming pools)
 IT 69824-08-4, Baquacil
 (in systems for **disinfection** of swimming pools)
- L37 ANSWER 31 OF 63 HCA COPYRIGHT 2006 ACS on STN
 120:67546 Regeneration of microetch cleaning **compositions**.
 Condra, Richard C.; Healey, Paul C. (Oliver Sales Co., USA). U.S.
 US 5259979 A **19931109**, 7 pp. (English). CODEN: USXXAM.
 APPLICATION: US 1993-3570 19930113.
- AB This invention is a process to rejuvenate the depleted metal salt
 oxidizing agents in used microetch cleaning compns., esp. for
 cleaning of Cu surfaces, and to maintain the desired etch rate.
 This process comprises the steps of: (1) measuring the reduced metal
 salt oxidizing agent in the microetch cleaning compn., (2) adding a
 rejuvenating agent in a stoichiometric or sub-stoichiometric
 quantity, and (3) mixing and allowing the rejuvenating agent to
 react with the reduced metal salt oxidizing agent to restore the
 concn. of the metal salt oxidizing agent to its approx. concn. in
 the original microetch cleaning compn.
- IT **7705-08-0**, Iron chloride (FeCl₃), uses
 (microetch cleaning compns. contg., regeneration of)
- RN 7705-08-0 HCA

CN Iron chloride (FeCl_3) (8CI, 9CI) (CA INDEX NAME)



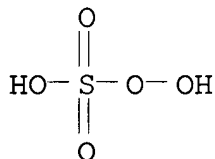
IT 25482-78-4, Potassium monopersulfate

28831-12-1, Sodium monopersulfate

(oxidizing agent, in regeneration of microetch cleaning compns.)

RN 25482-78-4 HCA

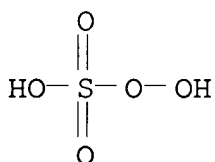
CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C09K013-04

ICS B44C001-22; C23F001-00

INCL 252079200

CC 76-14 (Electric Phenomena)

IT 7647-01-0, Hydrochloric acid, uses 7664-93-9, Sulfuric acid, uses
7705-08-0, Iron chloride (FeCl_3), uses 7778-50-9, Chromium
potassium oxide ($\text{Cr}_2\text{K}_2\text{O}_7$) 15158-11-9, Copper ion (Cu^{2+}), uses
(microetch cleaning compns. contg., regeneration of)

IT 1313-60-6, Sodium peroxide 2950-43-8, Hydroxylamine-O-sulfonic
acid 7722-84-1, Hydrogen peroxide, uses 7727-21-1, Potassium

peroxydisulfate 7727-54-0, Ammonium peroxydisulfate 7775-27-1,
 Sodium peroxydisulfate 11138-47-9, Sodium perborate 12653-78-0,
 Potassium perborate 17014-71-0, Potassium peroxide
25482-78-4, Potassium monopersulfate
28831-12-1, Sodium monopersulfate
 (oxidizing agent, in regeneration of microetch cleaning compns.)

L37 ANSWER 32 OF 63 HCA COPYRIGHT 2006 ACS on STN

120:57011 Decolorization and bleaching of wastepaper. Hill, Roy T.;
 Walsh, Patricia B.; Nugent, Anthony J.; Skinner, John E. (Solvay
 Interlox S.A., Belg.). Eur. Pat. Appl. EP 560421 A1 **19930915**
 , 7 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, IE,
 IT, LI, NL, PT, SE. (French). CODEN: EPXXDW. APPLICATION: EP
 1993-200529 19930225. PRIORITY: US 1992-848065 19920309; AU
 1993-32801 19930204.

AB In the title process, requiring no active Cl compds. and leaving the
 cellulose fiber properties unimpaired, colored wastepaper is treated
 with **aq. solns.** of H₂SO₅ and/or its salts in the
 presence of halide ions. Treating a pulp of colored wastepaper with
 1 g K peroxymonosulfate and 0.5 g HCl/100 g dry pulp at 60.degree.,
 pH 2.7, and consistency 12% for 60 min gave pulp with whiteness
 78.5.degree., Hunter color L 94.3, a 0.2, and b 6.3, breaking length
 577.9 mm, and viscosity (SCAN C15:62) 8.9 cP; vs. 78.4, 94.1, -0.2,
 5.6, 576.9, and 7.2, resp., when bleached with alk. NaOCl.

IT **7647-14-5**, Sodium chloride, uses
 (decolorization of wastepaper by peroxymonosulfates in presence
 of)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

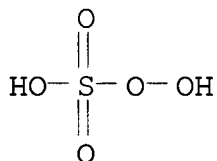
Cl-Na

IT **25482-78-4**

(decolorization of wastepaper by, in presence of halide ions)

RN 25482-78-4 HCA

CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

IC ICM D21C009-16
ICS D21C005-02; D21C009-10

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 60

IT 7647-01-0, Hydrochloric acid, uses **7647-14-5**, Sodium
chloride, uses
(decolorization of wastepaper by peroxymonosulfates in presence
of)

IT **25482-78-4**
(decolorization of wastepaper by, in presence of halide ions)

L37 ANSWER 33 OF 63 HCA COPYRIGHT 2006 ACS on STN
117:218009 Surface treatment of copper and copper alloys. Yoshioka,
Takashi; Kinoshita, Masashi; Murai, Takayuki (Shikoku Chemicals
Corp., Japan). Jpn. Kokai Tokkyo Koho JP 04165083 A2
19920610 Heisei, 8 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1990-293402 19901029.

AB Cu or Cu alloy surface is treated with **aq. solns**
. contg. 2-C.gtoREQ.3 alkylbenzimidazoles, org. acid, and then
aq. solns. contg. .gtorsim.50 ppm Ba²⁺ ion and
optionally halogen ion, Cu compd. or Zn compd. Heat-resistant
conversion coatings useful in fabrication of printed wiring boards
can be formed. The treated metals showed excellent solder
wettability.

IT **11129-27-4**, Copper bromide
(copper treatment with alkylbenzimidazoles and org. acids and,
for refractory coatings and good solder wettability)

RN 11129-27-4 HCA
CN Copper bromide (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====	=====	=====
Br	x	10097-32-2
Cu	x	7440-50-8

IT **7447-39-4**, Copper chloride (CuCl₂), properties
(copper treatment with alkylbenzimidazoles and org. acids and,
for refractory coatings and good solder wettability)

RN 7447-39-4 HCA
CN Copper chloride (CuCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl—Cu—Cl

IT **10361-37-2**, Barium chloride, properties **10553-31-8**
, Barium bromide

(copper treatment with alkylbenzimidazoles and, for refractory coatings and good solder wettability)

RN 10361-37-2 HCA

CN Barium chloride (BaCl₂) (9CI) (CA INDEX NAME)

Cl-Ba-Cl

RN 10553-31-8 HCA

CN Barium bromide (BaBr₂) (9CI) (CA INDEX NAME)

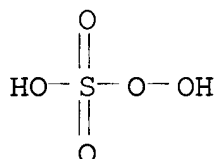
Br-Ba-Br

IT 28831-12-1, Sodium persulfate

(soft etchant, copper treatment solns. contg., alkylbenzimidazole and org. acid and barium ion in, for solder wettability)

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C23C022-52

CC 56-6 (Nonferrous Metals and Alloys)

Section cross-reference(s): 76

IT 557-34-6, Zinc acetate 11129-27-4, Copper bromide

(copper treatment with alkylbenzimidazoles and org. acids and, for refractory coatings and good solder wettability)

IT 7447-39-4, Copper chloride (CuCl₂), properties

(copper treatment with alkylbenzimidazoles and org. acids and, for refractory coatings and good solder wettability)

IT 64-18-6, Formic acid, properties 64-19-7, Acetic acid, properties

10361-37-2, Barium chloride, properties 10553-31-8

, Barium bromide

(copper treatment with alkylbenzimidazoles and, for refractory coatings and good solder wettability)

IT 28831-12-1, Sodium persulfate

(soft etchant, copper treatment solns. contg., alkylbenzimidazole and org. acid and barium ion in, for solder wettability)

L37 ANSWER 34 OF 63 HCA COPYRIGHT 2006 ACS on STN

117:157334 Divalent silver oxide bactericides. Antelman, Marvin S.
(Jonas, N., and Co., Inc., USA). U.S. US 5098582 A
19920324, 3 pp. (English). CODEN: USXXAM. APPLICATION: US
1991-697782 19910509.

AB The growth of bacteria in the water of swimming pools, hot tubs, and industrial cooling towers is prevented using divalent silver oxide in the presence of an oxidizing agent, e.g., **potassium monopersulfate** with or without Oxone. The Ag(II)O used at levels of 0.5 and 1.0 ppm for 5 and 10 min provides 100% kills of 100K/mL Streptococcus faecalis. The divalent silver does not form unsightly curdy ppts. in high halide waters (.ltoreq.5000 ppm **NaCl** equivs.), e.g., hot tubs. The method does not leave silver stains on the user's unprotected skin due to inadvertent exposure.

IC ICM C02F001-50

INCL 210759000

CC 61-5 (Water)

ST safety divalent silver oxide water **disinfection**

IT Swimming pools

(**disinfection** of, by divalent silver oxide, safety in)

IT Peroxysulfates

(in water **disinfection** by divalent silver oxide, for swimming pools and cooling waters)

IT Cooling

(waters, **disinfection** of, by divalent silver oxide, safety in)

IT Water purification

(**disinfection**, by divalent silver oxide, safety in)

IT 1310-73-2, Sodium hydroxide, uses 7727-21-1, Potassium peroxydisulfate 7761-88-8, Silver nitrate, uses

(in prepn. of divalent silver oxide for water **disinfection**, for swimming pools and cooling waters)

IT 37222-66-5, Oxone

(in water **disinfection** by divalent silver oxide, for swimming pools and cooling waters)

IT 1301-96-8, Silver oxide (AgO)

(in water **disinfection**, for swimming pools and cooling waters)

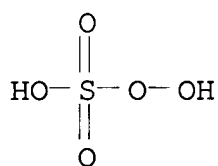
L37 ANSWER 35 OF 63 HCA COPYRIGHT 2006 ACS on STN

112:124882 Sanitation of swimming pool and other water. Thornhill, Robin W. (Total Pool Chemicals Ltd., UK). Brit. UK Pat. Appl. GB 2219790 A1 **19891220**, 15 pp. (English). CODEN: BAXXDU.
APPLICATION: GB 1989-12732 19890602. PRIORITY: GB 1988-14222 19880615.

AB Water, esp. swimming pool water, is **disinfected** by

controlled addn. of a bromide or iodide donor and an oxidizing agent, such as hypochlorite, O₃, or potassium peroxymonosulfate. The donors can be NaBr and NaI, resp. The method saves hypochlorite usage.

IT 10361-76-9, Potassium peroxymonosulfate
 (oxidizing agents, water **disinfection** with bromide or iodide and)
 RN 10361-76-9 HCA
 CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

IT 7647-15-6, Sodium bromide, uses and miscellaneous
 7681-82-5, Sodium iodide, uses and miscellaneous
 (water **disinfection** with, and oxidizing agents)
 RN 7647-15-6 HCA
 CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

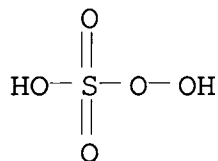
Br—Na

RN 7681-82-5 HCA
 CN Sodium iodide (NaI) (9CI) (CA INDEX NAME)

I—Na

IC ICM C02F001-50
 CC 61-5 (Water)
 ST **disinfection** water bromide iodide oxidant; swimming pool
disinfection bromide oxidant
 IT Swimming pools
 (disinfection of, bromide or iodide and oxidant for)
 IT Hypochlorites
 (oxidizing agents, water **disinfection** with bromide or iodide and)
 IT Bromides, uses and miscellaneous
 Iodides, uses and miscellaneous

- (water **disinfection** with, and oxidizing agents)
- IT Water purification
(**disinfection**, bromide or iodide and oxidant for, for recirculating waters)
- IT 10028-15-6, Ozone, uses and miscellaneous **10361-76-9**, Potassium peroxymonosulfate
(oxidizing agents, water **disinfection** with bromide or iodide and)
- IT **7647-15-6**, Sodium bromide, uses and miscellaneous
7681-82-5, Sodium iodide, uses and miscellaneous
(water **disinfection** with, and oxidizing agents)
- L37 ANSWER 36 OF 63 HCA COPYRIGHT 2006 ACS on STN
- 111:180434 Method and agent for controlling algae and fungus growth in water such as swimming pools, water reservoirs, cooling towers, and fountains. Girvan, John W. (Clufri CC, S. Afr.). S. African ZA 8804543 A **19890329**, 18 pp. (English). CODEN: SFXAB.
APPLICATION: ZA 1988-4543 19880624. PRIORITY: ZA 1987-5130 19870714.
- AB The algicide comprises a B deriv., e.g. Na2B4O7.5H2O, and an oxidizing agent, e.g. LiOCl or K2S2O8. Suitable concns. for a swimming pool are Na2B4O7.5H2O 25 mg/L and Br (as bromochlorodimethylhydantoin) 0.5-1.5 mg/L; the **combination** maintains optimal **water** quality.
- IT **10058-23-8**
(mixt. of, with sodium tetraboratepentrahydrate as algicide for water)
- RN 10058-23-8 HCA
- CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

- IT **7447-41-8**, Lithium chloride, uses and miscellaneous
(mixt. with sodium tetraboratepentrahydrate, algicide as, for water)
- RN 7447-41-8 HCA
- CN Lithium chloride (LiCl) (9CI) (CA INDEX NAME)

Cl-Li

IC ICM A01N
CC 61-5 (Water)
IT 10058-23-8

(mixt. of, with sodium tetraboratepentrahydrate as algicide for water)

IT 7447-41-8, Lithium chloride, uses and miscellaneous
(mixt. with sodium tetraboratepentrahydrate, algicide as, for water)

L37 ANSWER 37 OF 63 HCA COPYRIGHT 2006 ACS on STN

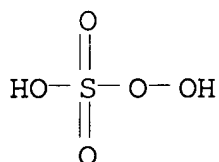
111:115819 Graft copolymerization with a new class of acidic peroxo salts as initiator. V. Grafting of methyl methacrylate onto jute fiber using **potassium monopersulfate** catalyzed by iron(II). Samal, Rajani K.; Samantaray, Himansu S.; Samal, Rabi N. (Dep. Chem., Ravenshaw Coll., Cuttack, 753003, India). Journal of Applied Polymer Science, 37(11), 3085-96 (English) 1989 . CODEN: JAPNAB. ISSN: 0021-8995.

AB Graft copolymn. of Me methacrylate onto jute fibers was studied in an **aq. soln.** using a new class of acidic peroxo salt, **potassium monopersulfate**, as initiator, under the catalytic influence of Fe(II) under N atm. The grafting reaction was influenced by the reaction time, temp., and concns. of monomer, initiator, and jute fibers. The grafting reactions were also studied in the presence of various salts and solvents. The max. grafting percent (385.4%) was obsd. at 35.degree. for the concn. of monomer (1.4082 M), initiator (12.9 .times. 10⁻³ M), catalyst (2.5 .times. 10⁻⁴ M), and solvent (acetic acid) compn. of (40:60) for a reaction time of 6 h. From the exptl. results, a suitable mechanism for the graft initiation and termination was put forth. The graft copolymers were characterized, and their improved properties such as tensile strength tested.

IT 10058-23-8
(catalysts, contg. iron (II), for graft polymn. of Me methacrylate on jute fibers, mechanism in relation to)

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)

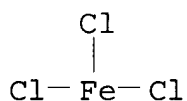


● K

IT 7646-85-7, Zinc chloride, uses and miscellaneous
 7705-08-0, Ferric chloride, uses and miscellaneous
 7758-02-3, Potassium bromide, uses and miscellaneous
 10108-64-2, Cadmium chloride (CdCl₂)
 (graft polymn. of Me methacrylate on jute fibers in presence of
potassium monopersulfate and)
 RN 7646-85-7 HCA
 CN Zinc chloride (ZnCl₂) (9CI) (CA INDEX NAME)

Cl-Zn-Cl

RN 7705-08-0 HCA
 CN Iron chloride (FeCl₃) (8CI, 9CI) (CA INDEX NAME)



RN 7758-02-3 HCA
 CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

RN 10108-64-2 HCA
 CN Cadmium chloride (CdCl₂) (7CI, 8CI, 9CI) (CA INDEX NAME)

Cl-Cd-Cl

IT 7647-15-6, Sodium bromide, uses and miscellaneous
 (graft polymn. of Me methacrylate on jute fibers in presence
potassium monopersulfate and)
 RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 40

ST methacrylate graft polymn jute fiber; **potassium monopersulfate** catalyst graft polymn

IT Jute

(fiber, graft polymn. of Me methacrylate on, mechanism of, in presence of **potassium monopersulfate** catalyzed by iron (II))

IT Polymerization

(graft, of Me methacrylate, on jute fibers, mechanism of, in presence of **potassium monopersulfate-iron** (II) system)

IT Polymerization catalysts

(graft, **potassium monopersulfate-iron** (II), for Me methacrylate on jute fibers, mechanism in relation to)

IT 10058-23-8

(catalysts, contg. iron (II), for graft polymn. of Me methacrylate on jute fibers, mechanism in relation to)

IT 7439-89-6, Iron, uses and miscellaneous

(catalysts, contg. **potassium monopersulfate**, for graft polymn. of Me methacrylate on jute fibers, mechanism in relation to)

IT 64-18-6, Formic acid, uses and miscellaneous 64-19-7, Acetic acid, uses and miscellaneous 67-56-1, Methanol, uses and miscellaneous 67-64-1, Acetone, uses and miscellaneous 110-86-1, Pyridine, uses and miscellaneous 142-71-2, Copper acetate 7487-88-9, Magnesium sulfate, uses and miscellaneous **7646-85-7**, Zinc chloride, uses and miscellaneous **7705-08-0**, Ferric chloride, uses and miscellaneous 7757-82-6, Sodium sulfate, uses and miscellaneous 7757-83-7, Sodium sulfite **7758-02-3**, Potassium bromide, uses and miscellaneous 7758-98-7, Copper sulfate, uses and miscellaneous 7785-87-7, Manganese sulfate 7786-81-4, Nickel sulfate 10101-53-8, Chromium sulfate **10108-64-2**, Cadmium chloride (CdCl₂) 10124-43-3 10294-26-5, Silver sulfate

(graft polymn. of Me methacrylate on jute fibers in presence of **potassium monopersulfate** and)

IT **7647-15-6**, Sodium bromide, uses and miscellaneous

10028-22-5, Ferric sulfate

(graft polymn. of Me methacrylate on jute fibers in presence **potassium monopersulfate** and)

IT 80-62-6, Methyl methacrylate

(polymn. of, graft, on jute fibers, mechanism of, in presence of

**potassium monopersulfate catalyzed by iron
(II))**

L37 ANSWER 38 OF 63 HCA COPYRIGHT 2006 ACS on STN

107:78204 Depolymerized hexosaminoglucan sulfates with antithrombotic, fibrinolytic, and antiinflammatory activity. Mascellani, Giuseppe; Bianchini, Pietro (Opocrin S.p.A., Italy). PCT Int. Appl. WO 8606729 A1 **19861120**, 43 pp. DESIGNATED STATES: W: AU, DK, HU, JP, NO, US; RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1986-EP291 19860515. PRIORITY: IT 1985-20769 19850517.

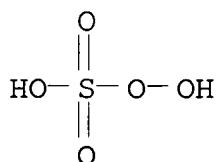
AB The title polysaccharides were prepd. by a free radical-initiated depolymn. of natural polysaccharides, such as heparins, heparan sulfates, dermatan sulfates, chondroitin sulfates, and hyaluronic acid in **aq. soln.** at 20-70.degree. using a peroxide selected from the group consisting of AcOOH, 3-ClC6H4C(O)OOH, H2O2, cumene hydroperoxide, Na2S2O8, and BzOOH, and a catalyst selected from Cu2+, Fe2+, Cr3+ and Cr2O72-. They are useful as antithrombotic, fibrinolytic and antiinflammatory agents with poor or no anticoagulant activity. Thus, 9% aq. H2O2 was added with stirring at 35-60.degree. in 2.5 h to a soln. of 1 kg HFA 15 raw heparin, 0.495 kg **NaCl**, and 1 kg AcONa in 10 L H2O contg. 0.46 g Cu(OAc)2.H2O while holding the pH at 7.5 by addn. of 1N NaOH. The mixt. was successively treated with EDTA, AcOH, and MeOH to give a ppt. which was redissolved in H2O and again treated as described above to give 845.5 g heparin with mol. wt. of 4600. This showed activated anti-factor X activity in vitro.

IT **28831-12-1**, Sodium persulfate

(free radical depolymn. by, of polysaccharides)

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C08B037-10

ICS C08B037-08; A61K031-73

CC 33-5 (Carbohydrates)

Section cross-reference(s): 1

IT 79-21-0, Peracetic acid 80-15-9, Cumene hydroperoxide 94-36-0,

Benzoyl peroxide, preparation 937-14-4, 3-Chloroperbenzoic acid
7722-84-1, Hydrogen peroxide, reactions 28831-12-1, Sodium
persulfate
(free radical depolymn. by, of polysaccharides)

L37 ANSWER 39 OF 63 HCA COPYRIGHT 2006 ACS on STN
106:214630 Polyaniline. Hagiwara, Tsuneo; Iwata, Kaoru (Agency of
Industrial Sciences and Technology, Japan). Jpn. Kokai Tokkyo Koho
JP 61266434 A2 19861126 Showa, 6 pp. (Japanese). CODEN:
JKXXAF. APPLICATION: JP 1985-108283 19850522.
AB Elec. cond. polyaniline is prepd. by polymn. of PhNHC6H4NHPh (I) in
the presence of chem. oxidants. NH4 persulfate (34.2 parts)
dissolved in 200 parts H2O was added dropwise at 5.degree. over 1 h
to a **mixt.** of H2O 1200, concd. HCl 300, and p-I
13.0 parts, the mixt. stirred at 5.degree. for 6 h and at room temp.
for 18 h forming polyaniline, which was press molded at 3800 kg/cm2
to show elec. cond. 4.0 S/cm.
IT 7681-11-0, Potassium iodide, uses and miscellaneous
(polymn. catalysts and dopants, contg. iodine, in prepn. of
polyaniline from diphenylphenylenediamines)
RN 7681-11-0 HCA
CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)

I-K

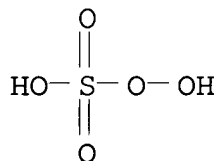
IT 7447-39-4, Copper(II) chloride, uses and miscellaneous
7705-08-0, Ferric chloride, uses and miscellaneous
15593-29-0, Sodium persulfate
(polymn. catalysts and dopants, in prepn. of polyaniline from
diphenylphenylenediamines)
RN 7447-39-4 HCA
CN Copper chloride (CuCl2) (8CI, 9CI) (CA INDEX NAME)

Cl-Cu-Cl

RN 7705-08-0 HCA
CN Iron chloride (FeCl3) (8CI, 9CI) (CA INDEX NAME)

Cl
|
Cl-Fe-Cl

RN 15593-29-0 HCA
CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IC ICM C08G073-00

ICA H01B001-12

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 76

IT **7681-11-0**, Potassium iodide, uses and miscellaneous
(polymn. catalysts and dopants, contg. iodine, in prepn. of
polyaniline from diphenylphenylenediamines)

IT 1333-82-0, Chromium(VI) oxide **7447-39-4**, Copper(II)
chloride, uses and miscellaneous **7705-08-0**, Ferric
chloride, uses and miscellaneous 7727-21-1, Potassium persulfate
7727-54-0, Ammonium persulfate 10421-48-4, Ferric nitrate
13537-24-1 **15593-29-0**, Sodium persulfate
(polymn. catalysts and dopants, in prepn. of polyaniline from
diphenylphenylenediamines)

L37 ANSWER 40 OF 63 HCA COPYRIGHT 2006 ACS on STN

106:129396 Phase hologram formation. Clark, John Andrew; Adshead, Alan;
Butcher, David Walter (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl.
EP 207895 A2 **19870107**, 17 pp. DESIGNATED STATES: R: BE,
CH, DE, FR, GB, IT, LI. (English). CODEN: EPXXDW. APPLICATION: EP
1986-810280 19860619. PRIORITY: GB 1985-16054 19850625.

AB A hologram is prepd. by exposing a photosensitive Ag halide emulsion
of which .gtoreq.80 wt.% of the halide is bromide, developing in a
photog. developer, converting the residual AgBr to AgI by use of an
aq. iodide soln., removing the developed Ag but
leaving the AgI either by use of a bleach-fix soln. or by
rehalogenating the developed Ag to AgBr or AgCl using a brominating
or chlorinating Ag bleaching soln. and simultaneously or
subsequently fixing out the thus formed AgBr or AgCl using a fixing
agent under such conditions that AgI is not dissolved from the
material. A AgBr emulsion (mean crystal size 0.035 .mu.) was
optically sensitized to 633 nm, coated on a transparent film
support, halog. exposed using a Denisyuk exposure method using a
brushed Al plate as an object, developed in a soln. contg. Na2SO3,
hydroquinone, and Na2CO3, stirred in an AcOH soln., treated in a KI
soln. to convert the bromide in the emulsion to iodide, washed,
bleached in a soln. contg. KBr and Fe(NH4)EDTA, the rebrominated Ag

fixed in a Na₂S₂O₃ soln., washed, and dried to give a phase hologram which had a brightness of .apprx.20% and a scattering of <2%.

IT 7783-96-2P, Silver iodide
 (phase holograms, photog. processing in prepn. of)
 RN 7783-96-2 HCA
 CN Silver iodide (AgI) (9CI) (CA INDEX NAME)

Ag-I

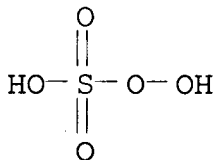
IT 7447-40-7, Potassium chloride, uses and miscellaneous
 7758-02-3, Potassium bromide, uses and miscellaneous
 15593-29-0, Sodium persulfate
 (photog. bleaching soln. contg., for prepn. of silver iodide
 phase holograms)
 RN 7447-40-7 HCA
 CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7758-02-3 HCA
 CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

RN 15593-29-0 HCA
 CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IT 7681-11-0, uses and miscellaneous 7681-82-5,
 Sodium iodide, uses and miscellaneous
 (photog. processing soln. contg., for converting silver bromide
 to silver iodide in prepn. of phase hologram)
 RN 7681-11-0 HCA
 CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)

I-K

RN 7681-82-5 HCA
CN Sodium iodide (NaI) (9CI) (CA INDEX NAME)

I-Na

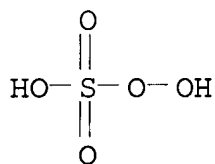
IC ICM G03C005-44
ICS G03H001-18
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **7783-96-2P**, Silver iodide
(phase holograms, photog. processing in prepn. of)
IT **7447-40-7**, Potassium chloride, uses and miscellaneous
7758-02-3, Potassium bromide, uses and miscellaneous
10421-48-4, Ferric nitrate 14915-07-2, Peroxide **15593-29-0**
, Sodium persulfate 15708-41-5 21265-50-9
(photog. bleaching soln. contg., for prepn. of silver iodide phase holograms)
IT **7681-11-0**, uses and miscellaneous **7681-82-5**,
Sodium iodide, uses and miscellaneous
(photog. processing soln. contg., for converting silver bromide to silver iodide in prepn. of phase hologram)

L37 ANSWER 41 OF 63 HCA COPYRIGHT 2006 ACS on STN
105:155990 Improving the permeability of a subterranean formation by removal of polymeric materials. Hanlon, David J.; Wilson, J. Michael; Weaver, Jimmie D. (Halliburton Co., USA). U.S. US 4609475 A **19860902**, 5 pp. (English). CODEN: USXXAM.
APPLICATION: US 1984-582994 19840224.

AB A compn. (at pH .apprx.2-10) for removing polymeric material from a porous medium (e.g., an underground formation) contains .apprx.2.0-20.0 wt.% water-sol. carboxylic acid, .apprx.2.0-20.0 wt.% oxidizing agent, and (optionally) an additive effective in promoting the decompn. of the oxidizing agent. An **aq. compn.** (pH 4.4) contg. HOAc, Na perborate, and 0.2 wt.% FeCl₂ (additive) was very effective in solubilizing (visually obsd.) a polyacrylamide after 6 h. The compns. are useful for restoring permeability in petroleum reservoirs (or lab. cores) after polymer flood recovery (or simulated recovery).

IT **28831-12-1**
(oxidizing agent, solubilization compns. contg., for polymer removal from underground formations)

RN 28831-12-1 HCA
CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IT 7758-94-3

(promoter, for peroxide decompn., solubilization compns. contg.,
for polymer removal from underground formations)

RN 7758-94-3 HCA

CN Iron chloride (FeCl₂) (8CI, 9CI) (CA INDEX NAME)

Cl-Fe-Cl

IC ICM E21B043-25

ICS E21B043-28

INCL 252008550B

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 38

IT 3313-92-6 7632-04-4 7681-53-0 7722-84-1, uses and
miscellaneous 15593-49-4 18278-90-5 **28831-12-1**

(oxidizing agent, solubilization compns. contg., for polymer
removal from underground formations)

IT 62-56-6, uses and miscellaneous 64-17-5, uses and miscellaneous
67-56-1, uses and miscellaneous 67-63-0, uses and miscellaneous
71-23-8, uses and miscellaneous 71-36-3, uses and miscellaneous
75-04-7, uses and miscellaneous 107-19-7 107-21-1, uses and
miscellaneous 110-86-1D, alkyl derivs. 123-42-2 123-51-3
4270-70-6 **7758-94-3** 15438-31-0, uses and miscellaneous
17493-86-6, uses and miscellaneous 22541-53-3, uses and
miscellaneous

(promoter, for peroxide decompn., solubilization compns. contg.,
for polymer removal from underground formations)

L37 ANSWER 42 OF 63 HCA COPYRIGHT 2006 ACS on STN

105:62021 Graft copolymerization with a new class of acidic peroxo salt.

IV. Grafting of acrylamide onto jute fiber using **potassium**

monopersulfate: catalyzed by iron(II). Samal, Rajani K.;

Samantaray, Himansu S.; Samal, Rabi N. (Dep. Chem., Ravenshaw Coll.,
Cuttack, 753003, India). Polymer Journal (Tokyo, Japan), 18(6),
471-8 (English) **1986**. CODEN: POLJB8. ISSN: 0032-3896.

AB Graft polymn. of acrylamide [79-06-1] onto jute fibers was studied

in aq. soln. using a new class of acidic peroxo salt, **K monopersulfate**, as the initiator, under the catalytic influence of Fe(II) in a nitrogen atm. The graft yield was influenced by the reaction time, temp., and concn. of the monomer, initiator, and base polymer. The grafting reaction was studied in the presence of a no. of salts and org. solvents. The max. graft yield (75.3%) was obsd. at 25.degree.C at the concns. of monomer (1.2 M), initiator (12.9×10^{-3} M), and catalyst (1.0×10^{-3} M) for a reaction time of 4 h. From the exptl. results a suitable mechanism for graft initiation and termination was suggested. The graft copolymers were characterized and their improved properties were tested.

IT **7646-85-7**, uses and miscellaneous **7705-08-0**, uses and miscellaneous **7758-02-3**, uses and miscellaneous (acrylamide graft polymn. on jute fibers in presence of)
 RN 7646-85-7 HCA
 CN Zinc chloride (ZnCl₂) (9CI) (CA INDEX NAME)

Cl-Zn-Cl

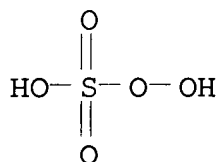
RN 7705-08-0 HCA
 CN Iron chloride (FeCl₃) (8CI, 9CI) (CA INDEX NAME)

Cl
 |
 Cl-Fe-Cl

RN 7758-02-3 HCA
 CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

IT **10058-23-8**
 (catalysts, contg. ferrous sulfate, for polymn. of acrylamide on jute fibers)
 RN 10058-23-8 HCA
 CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

- CC 40-2 (Textiles)
Section cross-reference(s): 35
- ST acrylamide graft polymn jute fiber; catalyst polymn acrylamide
persulfate iron; **potassium monopersulfate**
catalyst polymn acrylamide
- IT Polymerization catalysts
(iron sulfate-**potassium monopersulfate**, for
acrylamide on jute fibers)
- IT 142-71-2 7487-88-9, uses and miscellaneous **7646-85-7**,
uses and miscellaneous **7705-08-0**, uses and miscellaneous
7757-82-6, uses and miscellaneous **7758-02-3**, uses and
miscellaneous 7758-98-7, uses and miscellaneous 7785-87-7
10101-53-8 10124-43-3
(acrylamide graft polymn. on jute fibers in presence of)
- IT **10058-23-8**
(catalysts, contg. ferrous sulfate, for polymn. of acrylamide on
jute fibers)
- IT 7720-78-7
(catalysts, contg. **potassium monopersulfate**,
for polymn. of acrylamide on jute fibers)
- L37 ANSWER 43 OF 63 HCA COPYRIGHT 2006 ACS on STN
99:167067 Bromine surface treatment of photosensitive elastomeric
flexographic printing plates. Gruetzmacher, Robert R.; Munger,
Stanley H.; Warfield, Peter F. (du Pont de Nemours, E. I., and Co. ,
USA). U.S. US 4400459 A **19830823**, 14 pp. Cont.-in-part
of U.S. Ser. No. 261,293, abandoned. (English). CODEN: USXXAM.
APPLICATION: US 1982-375975 19820507. PRIORITY: US 1981-261293
19810507.
- AB A process for the modification of the surfaces of relief flexog.
printing plates comprises (1) postexposure of a developed plate
contg. an elastomeric compn. including a polymer of a conjugated
diolefin hydrocarbon and a monomeric compd. and (2) a treatment with
an **aq. soln.** of an alkali monopersulfate and a
bromide salt. Thus, a flexog. plate prepd. with a photosensitive
compn. contg. Hycar 1472 X 26 81.59, hexamethylene diacrylate 10.00,

Paraplex G-30 5.00, diisooctyl 2,2'-[(dibutylstannylene)bis(thio)]biacetate 2.00, 2-phenyl-2,2-dimethoxyacetophenone 1.25, 2,6-di-tert-butyl-4-methylphenol 0.10, 1,4,4-trimethyl-2,3-diazabicyclo(3.2.2)-non-2-ene 2,3-dioxide 0.05, and C. I. Acid Blue 59 (10% dispersion in ethylene glycol) 0.01 (dry) parts was imagewise exposed and developed. The plate was postexposed in air for 10 min and immersed in a soln. contg. K

monopersulfate compd. (2 KHSO₅.KHSO₄.K₂SO₄) 4.70, KBr 0.50 and H₂O 94.80 % for 2 min to give a plate with improved hardness as compared to a control treated with a Cl soln.

IT 7758-02-3, uses and miscellaneous
(photosensitive elastomeric flexog. printing plate surface treatment with soln. contg. **potassium monopersulfate** compd. and)

RN 7758-02-3 HCA

CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

IC G03C005-00

INCL 430306000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Rubber, synthetic
(acrylic, flexog. printing plate prepd. with photosensitive compn. contg., surface treatment of, with soln. contg. potassium bromide and **potassium monopersulfate** compd.)

IT Printing plates
(flexog., from photosensitive elastomeric compn. contg. acrylonitrile-butadiene copolymer, surface treatment of, with soln. contg. potassium bromide and **potassium monopersulfate** compd.)

IT 128-37-0, uses and miscellaneous 6378-88-7 13048-33-4
24650-42-8 25168-24-5 34122-40-2 39363-90-1
(flexog. printing plate prepd. with photosensitive compn. contg., surface treatment of, with soln. contg. potassium bromide and **potassium monopersulfate** compd.)

IT 7758-02-3, uses and miscellaneous
(photosensitive elastomeric flexog. printing plate surface treatment with soln. contg. **potassium monopersulfate** compd. and)

L37 ANSWER 44 OF 63 HCA COPYRIGHT 2006 ACS on STN

98:98830 Bromine surface treatment of photosensitive elastomeric flexographic printing plates. Gruetzmacher, Robert Ralph; Munger, Stanley Hiram; Warfield, Peter Foster (du Pont de Nemours, E. I., and Co. , USA). Eur. Pat. Appl. EP 64565 A1 19821117, 57

pp. DESIGNATED STATES: R: DE, FR, GB, IT, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1981-103483 19810507.

AB A method is described for improving the solvent resistance of flexog. printing plates. A flexog. plate prepd. from a photosensitive elastomer contg. a polymer of a conjugated diolefin hydrocarbon and a nongaseous ethylenically unsat. compd., after imagewise exposure and development, is dried, postexposed to actinic radiation, and contacted with an **aq. compn.** of an alkali monopersulfate and a bromide salt for 15 s to 40 min. Thus, a flexog. printing plate prepd. from a photopolymer compn. contg. Hycar 1472 .times. 26 81.59, hexamethylene diacrylate 10, 2-phenyl-2,2-dimethoxyacetophenone 1.25, Acid Blue 59 0.01, and a plasticizer, stabilizer, and inhibitor mixt. 7.15 parts was imagewise exposed in a Cyrel Exposure Unit, developed with a soln. of perchloroethylene 75 and BuOH 25 vol.% for 16 min, dried, postexposed 10 min, and immersed in a soln. contg. a **K monopersulfate** compd. (2 KHSO5.KHSO4.K2SO4) 4.7, KBr 0.5, and H2O 94.8% for 2 min. The obtained plate was soaked 24 h in 2-PrOH and upon removal from the solvent the change in wt. (.DELTA.%W) equaled 1.20.

IT 7758-02-3, uses and miscellaneous
(photosensitive flexog. printing plate treatment with soln. contg., for increased solvent resistance)

RN 7758-02-3 HCA

CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

IC G03F007-02; G03C001-68; G03C001-727

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 37222-66-5

(photosensitive flexog. printing plate treatment with **aq . soln.** contg. potassium bromide and, for increased solvent resistance)

IT 7681-52-9 7758-02-3, uses and miscellaneous
(photosensitive flexog. printing plate treatment with soln. contg., for increased solvent resistance)

L37 ANSWER 45 OF 63 HCA COPYRIGHT 2006 ACS on STN

98:77954 Effervescent cleansing **composition**. Foga, Anthony B. J. (Warner-Lambert Co. , USA). Brit. UK Pat. Appl. GB 2096162 A 19821013, 11 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1982-9534 19820331. PRIORITY: US 1981-251030 19810403.

AB Denture effervescent cleansers with improved cleaning efficiency are comprised of an oxidizing agent (monopersulfate salt), a bleaching promoter (alkali **metal halide**), an effervescence

promoter (perborate), Na₂CO₃, and NaOH. Denture cleansers were prepd. in the form of effervescent tablets from a formulation contg. NaCl 14.7, 50% NaOH soln. 0.3, KBr 0.04, H₂O 0.17, Na₂CO₃ 29, Na₃PO₄ 0.45, **K monopersulfate** 48.3, EDTA tetra-Na salt 0.75, Na perborate 4.2, FD & C Blue 0.23, flavor and fragrance 0.94 detergent 0.18, and lubricants 0.72 wt.%. Each of the tablets disintegrated within 5 min and initially exhibited a strong color reaction. The fade time for the colorant ranged from 7 to 17 min.

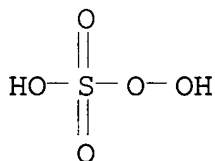
IT 7647-14-5, uses and miscellaneous 7758-02-3, uses
and miscellaneous 10058-23-8
(effervescent denture cleansers contg.)
RN 7647-14-5 HCA
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7758-02-3 HCA
CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

RN 10058-23-8 HCA
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IC C11D007-18
CC 62-7 (Essential Oils and Cosmetics)
Section cross-reference(s): 46
IT Bleaching agents
Oxidizing agents
Alkali **metal halides**, biological studies
Alkaline earth halides
(effervescent denture cleansers contg.)
IT 64-02-8 497-19-8, uses and miscellaneous 1310-73-2, uses and

miscellaneous 7601-54-9 7647-14-5, uses and
miscellaneous 7758-02-3, uses and miscellaneous
10058-23-8 11138-47-9
(effervescent denture cleansers contg.)

L37 ANSWER 46 OF 63 HCA COPYRIGHT 2006 ACS on STN

98:18486 Washing **composition**. Clements, Anthony Henry
(Unilever N. V. , Neth.; Unilever PLC). Eur. Pat. Appl. EP 58444 A1
19820825, 19 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR,
GB, IT, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP
1982-200086 19820126. PRIORITY: GB 1981-4826 19810216.

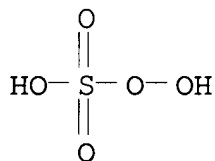
AB The addn. of small amt. of KI to laundry detergents contg. bleaching
agents, such as dipyrzophthalic acid [1786-87-4] or Na
perborate-(Ac2NCH2)2 [10543-57-4] system reduced dye transfer
during laundering of mixt. of color or colored and white fabrics at
low temp., esp. .ltoreq.40.degree.. Thus, a detergent soln. contg.
0.12 g (Ac2NCH2)2/L, 0.081 g Na perborate/L, and 0.06 mmol KI/L was
used at 40.degree. for the laundering of a mixt. of white nylon
fabric and nylon fabric dyed with C. I. Disperse Blue 16. The
reflectance of the white fabric at the max. absorption wavelength of
the dye after laundering with 80.8, compared with 61.0 are fabric
laundered similarly without addn. of KI.

IT 10058-23-8

(bleaching agents, iodide as dye transfer inhibitor for)

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX
NAME)



● K

IT 7681-11-0, uses and miscellaneous

(dye transfer inhibitors, laundry detergents contg. peracid
bleaches and)

RN 7681-11-0 HCA

CN Potassium iodide (KI) (8CI, 9CI) (CA INDEX NAME)

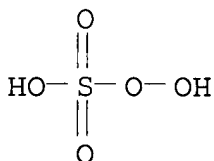
I-K

IC C11D003-39; D06L003-06
 CC 46-5 (Surface Active Agents and Detergents)
 IT 1786-87-4 **10058-23-8** 11138-47-9
 (bleaching agents, iodide as dye transfer inhibitor for)
 IT **7681-11-0**, uses and miscellaneous
 (dye transfer inhibitors, laundry detergents contg. peracid
 bleaches and)

L37 ANSWER 47 OF 63 HCA COPYRIGHT 2006 ACS on STN
 96:127020 Restoration of uranium solution mining deposits. DeVries,
 Frederick W.; Lawes, Bernard C. (du Pont de Nemours, E. I., and Co.
 , USA). U.S. US 4311341 A **19820119**, 3 pp. Cont.-in-part
 of U.S. Ser. No. 892,754. (English). CODEN: USXXAM. APPLICATION:
 US 1979-82553 19791009. PRIORITY: US 1978-892754 19780403.
 AB A process is provided for restoring an ore deposit after U soln.
 mining with (NH₄)₂CO₃ leaching solns. The process involves flushing
 the deposit with an **aq. soln.** of a K salt,
 during which K ions exchange with NH₄ ions remaining in the deposit.
 The NH₄-contg. flushing soln. is withdrawn from the deposit for
 disposal. Thus, a leached U-ore residue contg. 0.08-0.10% NH₃ was
 treated with K salts. The NH₃ removal was 63% with water alone,
 >93% with 5 g K₂SO₄/L, 88% with 5 g K₂SO₅ (Oxone)/L, and 89% with 5
 g Oxone and 0.04 g KCl/L.
 IT **7447-40-7**, occurrence **10361-76-9**
 (uranium leached or deposit treatment by solns. of, for ammonia
 removal)
 RN 7447-40-7 HCA
 CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 10361-76-9 HCA
 CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX
 NAME)



●2 K

IC E21B043-28

INCL 299005000

CC 54-2 (Extractive Metallurgy)

IT 7447-40-7, occurrence 7778-80-5, occurrence

10361-76-9

(uranium leached or deposit treatment by solns. of, for ammonia removal)

L37 ANSWER 48 OF 63 HCA COPYRIGHT 2006 ACS on STN

95:225423 Water treatment for swimming pools. Malafosse, Jean; Izoret, Georges; Zumbrunn, Jean Pierre (Air Liquide SA pour l'Etude et l'Exploitation des Procèdes Georges Claude, Fr.). Fr. Demande FR 2462393 **19810213**, 10 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1979-19404 19790727.

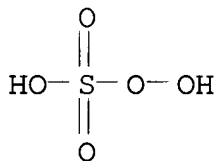
AB A large excess of alkali **metal bromide**, e.g., KBr or NaBr, introduced into the water of a swimming pool, with the addn. of a mineral peroxide, e.g. H₂SO₅ or KHSO₅, liberates Br to act as bactericide-algicide without changing water pH. Thus, 4.5 kg of NaBr and 0.48 kg of 40% KHSO₅ powder dissolved into 100 m³ of water produce, after one hour, 1.3 mg free Br/L at a const. pH of 7.8. Theor. yield is 2.0 mg Br/L, the difference being taken up by impurities in the water.

IT 10058-23-8

(bromine from alkali **metal bromide** and, algae and bacteria removal by, in swimming pool water)

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IT 7647-15-6, uses and miscellaneous

(bromine from mineral peroxide and, algae and bacteria removal by, in swimming pool water)

RN 7647-15-6 HCA

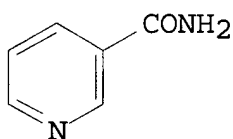
CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

- IC C02F001-76; E04H003-20
 CC 61-4 (Water)
 IT Swimming pools
 (algae and bacteria removal from water of, by bromine, from
 alkali **metal bromides** and mineral peroxides)
 IT Peroxides, uses and miscellaneous
 (bromine from alkali **metal bromides** and,
 algae and bacteria removal by, in swimming pool water)
 IT Alkali **metal bromides**
 (bromine from mineral peroxides and, algae and bacteria removal
 by, in swimming pool water)
 IT **10058-23-8**
 (bromine from alkali **metal bromide** and, algae
 and bacteria removal by, in swimming pool water)
 IT **7647-15-6**, uses and miscellaneous
 (bromine from mineral peroxide and, algae and bacteria removal
 by, in swimming pool water)
 IT 7726-95-6, uses and miscellaneous
 (**disinfection** by, of swimming pool water, from alkali
 metal bromides and mineral peroxides)

L37 ANSWER 49 OF 63 HCA COPYRIGHT 2006 ACS on STN
 94:183352 Color photographic bleach **compositions**. (Fuji Photo
 Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 55149944
19801121 Showa, 16 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1979-57434 19790509.

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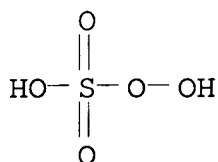
I

- AB Ag halide color photog bleach compns. contain (1) peroxosulfate
 salts or ferric salts, (2) water-sol. halides, and (3) a compd. of
 the formula RZNHR1 (Z = CO, SO2; R = alkyl, alkenyl, Ph, alkoxy,
 amino, acylamino, heterocyclic moiety; R1 = H, alkyl, alkenyl, Ph,
 acyl, carbamoyl, heterocyclic moiety; RR1 in combination may form 5-
 or 6-membered ring). The bleach solns. do not release halogen and
 other gases. Thus, a photog. bleach soln. contg. Na peroxosulfate
 60, NaCl 30, NaOH 6.4, I 2.7 g/L and a 85% H3PO4 11.8 mL/L
 was prepd. and kept at 40.degree. for 7 days. Cl2 and other gases
 were not released from the bleach soln.
 IT **7647-14-5**, uses and miscellaneous **31499-96-4**
 (color photog. bleach soln. contg.)

RN 7647-14-5 HCA
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl—Na

RN 31499-96-4 HCA
CN Peroxymonosulfuric acid, sodium salt (8CI, 9CI) (CA INDEX NAME)



●x Na

IC G03C007-42
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT 66-22-8, uses and miscellaneous 81-07-2 98-92-0 108-80-5
123-56-8 461-72-3 616-45-5 1310-73-2, uses and miscellaneous
7647-14-5, uses and miscellaneous 7664-38-2, uses and
miscellaneous **31499-96-4**
(color photog. bleach soln. contg.)

L37 ANSWER 50 OF 63 HCA COPYRIGHT 2006 ACS on STN
91:195732 Aqueous gels for use in treating earth formations. Murphey,
Joseph Robert (Halliburton Co., USA). Brit. UK Pat. Appl. GB
2005277 **19790419**, 27 pp. (English). CODEN: BAXXDU.
APPLICATION: GB 1978-35379 19780901.

AB The title gels with viscosity .gtoreq.30 cP useful in the
consolidation of earth formations around petroleum wells comprise an
aq. liq. gelled by a neutral polysaccharide and contain an epoxy
resin compn., which comprises org. diluent, curing
accelerators/retarders, and/or a silane, a sparingly water-sol.
cationic surfactant, a water-miscible nonionic surfactant, a gel
breaker, and optionally dispersed siliceous particles. Thus, to a
5% **NaCl** brine was added 0.96 g hydroxyethyl cellulose
[9004-62-0], the mixt. was stirred 1 h, and 1 cm³ of a 1% **aq**
. **soln.** of an oxidase [9035-73-8] enzymic gel breaker was
added. To the broken gel was added 1 cm³ of a cationic-nonionic
surfactant blend, 100 g 40-60 US mesh Ottawa sand, and 10 cm³ Epon
828 [25068-38-6] to give sand completely coated by epoxy resin.
IT **7447-39-4**, uses and miscellaneous

(catalysts, for Bu peroxide gel breaking agents, in aq. cellulose gels)

RN 7447-39-4 HCA

CN Copper chloride (CuCl₂) (8CI, 9CI) (CA INDEX NAME)

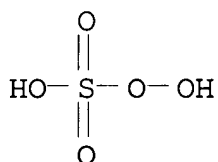
Cl—Cu—Cl

IT 15593-29-0

(gel breaking agents, for epoxy resin-contg. aq. cellulose gels, for sand-consolidating compns.)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IC C08L063-00; E21B043-04; C08L001-00

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)

Section cross-reference(s): 37, 43, 46

IT 7447-39-4, uses and miscellaneous

(catalysts, for Bu peroxide gel breaking agents, in aq. cellulose gels)

IT 75-91-2 9035-73-8 15593-29-0

(gel breaking agents, for epoxy resin-contg. aq. cellulose gels, for sand-consolidating compns.)

L37 ANSWER 51 OF 63 HCA COPYRIGHT 2006 ACS on STN

85:70681 Silver bleaching solutions. Fisch, Richard S.; Newman, Norman (Minnesota Mining and Manufacturing Co., USA). U.S. US 3960565 19760601, 4 pp. (English). CODEN: USXXAM. APPLICATION: US 1973-414890 19731112.

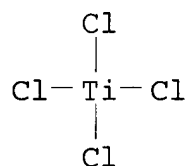
AB Nonfixing photog. bleaching solns. of high efficiency which do not contain ferricyanide are composed of an **aq. soln** . contg. a **water**-sol. ferric compd., such as FeCl₃ or ferric ethylenediaminetetraacetate, a halide ion, and a water-sol. compd. which releases an inorg. ion in **aq. soln.** and which increases the oxidn. potential of the soln. at a const. pH by .gtoreq. 50 mV when in a concn. not > than 50 g/l. Thus, a fully exposed film (color pos.-type having an original Ag coating wt. of

50 mg/dm²) was developed in CD-3 developer (5 min), washed, then bleached in a soln. contg. mono-Na ethylenediaminetetraacetatoferate(III) 80, di-Na ethylenediaminetetraacetate 30, KBr 180, and potassium dichromate 5 g/l. (5 min), then fixed, then washed, and dried. The change in the redox potential of the soln. in mV was +375 and the amt. of Ag remaining in the film was 2 mg/dm² vs. 30 mg/dm² for a control contg. no potassium dichromate.

IT 7550-45-0, uses and miscellaneous 10058-23-8
(photog. bleaching solns. contg. monosodium
ethylenediaminetetraacetatoferate, potassium bromide, and,
nonfixing)

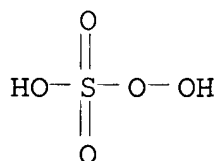
RN 7550-45-0 HCA

CN Titanium chloride (TiCl₄) (T-4)- (9CI) (CA INDEX NAME)



RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IT 7758-02-3, uses and miscellaneous
(photog. bleaching **solns.** contg. **water-sol.**
ferrate compd., water-sol. inorg. compd., and, nonfixing)

RN 7758-02-3 HCA

CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

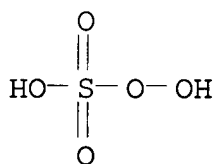
Br-K

IC G03C005-32

INCL 096060000R

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic

- Processes)
- IT 1314-62-1, uses and miscellaneous 1314-62-1D, Vanadium oxide (V2O5), EDTA complex **7550-45-0**, uses and miscellaneous 7553-56-2, uses and miscellaneous 7631-99-4, uses and miscellaneous 7758-05-6 7778-50-9 7790-28-5 **10058-23-8** 16774-21-3
(photog. bleaching solns. contg. monosodium ethylenediaminetetraacetato ferrate, potassium bromide, and, nonfixing)
- IT 139-33-3
(photog. bleaching **solns.** contg. **water-sol.** ferrate compd., halide, water sol. inorg. compd., and, nonfixing)
- IT **7758-02-3**, uses and miscellaneous
(photog. bleaching **solns.** contg. **water-sol.** ferrate compd., water-sol. inorg. compd., and, nonfixing)
- L37 ANSWER 52 OF 63 HCA COPYRIGHT 2006 ACS on STN
84:107445 Washing and bleaching **composition.** Deutscher, Fritz; Leitner, Robert (Unilever N. V., Neth.). Ger. Offen. DE 2525878 **19760102**, 10 pp. (German). CODEN: GWXXBX.
APPLICATION: DE 1975-2525878 19750610.
- AB In the cleaning and bleaching of textiles in the presence of Caroate (monopersulfate) [**10058-23-8**] bleaching agent and NaBr [**7647-15-6**] activator, the degrdn. of textiles was minimized by adding urea [57-13-6] or acetamide [60-35-5] to the bleaching compn. Thus, a mixt. of Caroate 2, NaBr 1, and urea 2 g caused a min. of fabric degrdn. during laundering and bleaching of tea-stained cotton fabrics.
- IT **10058-23-8**
(bleaching agents, contg. amides for fabric protection)
- RN 10058-23-8 HCA
- CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

- IT **7647-15-6**, uses and miscellaneous
(peroxymonosulfate contg. amides and, for bleaching with reduced fabric degrdn.)

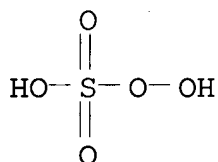
RN 7647-15-6 HCA
CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

IC C11D; D06L
CC 46-5 (Surface Active Agents and Detergents)
IT 10058-23-8
(bleaching agents, contg. amides for fabric protection)
IT 7647-15-6, uses and miscellaneous
(peroxymonosulfate contg. amides and, for bleaching with reduced fabric degrdn.)

L37 ANSWER 53 OF 63 HCA COPYRIGHT 2006 ACS on STN
83:102282 **Composition** for cleaning copper surfaces. Fong,
Jaan-Jiue; Beckwith, Merton M. (Minnesota Mining and Manufacturing
Co., USA). U.S. US 3887405 19750603, 4 pp. (English).
CODEN: USXXAM. APPLICATION: US 1974-468645 19740510.
AB Prior to electroplating to form printed circuits, Cu surfaces are
mildly etched by an **aq. soln.** contg. 60-240 g
K monopersulfate/l., 15-500 ppm **NaCl**,
and H2SO4 at pH 0.2-1.8 and 20-35.degree.. An alkali metal sulfate
.ltoreq.10 g/l. is an optional additive. The cleaning soln.
produces a fine grain, unstained surface finish. Immersion times
are as low as 1 min.
IC C23F
INCL 156018000
CC 56-5 (Nonferrous Metals and Alloys)
Section cross-reference(s): 76

L37 ANSWER 54 OF 63 HCA COPYRIGHT 2006 ACS on STN
78:160876 **Compositions** for bleaching and softening fabrics.
Jones, John Paul; Nicol, Charles Henry (Procter and Gamble Co.).
Fr. Demande FR 2126255 19721110, 27 pp. (French). CODEN:
FRXXBL. APPLICATION: FR 1972-5795 19720221.
AB Dry compns. for bleaching and softening fabrics with little damage
to color were prep'd. from monopersulfate and/or peroxide acid
bleaching agents, quaternary ammonium compds. and a buffer. A
typical compn. contained **K monopersulfate** [
25482-78-4] 25, cetyltrimethylammonium chloride [112-02-7]
12, **NaCl** 6, Na2CO3 buffer 21 and inner materials 36%.
IT 25482-78-4
(bleaching agents, contg. softeners, for textiles)
RN 25482-78-4 HCA
CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



● x K

IC D06L; D06M

CC 39-9 (Textiles)

IT 1786-87-4 1941-79-3 2311-91-3 **25482-78-4**
(bleaching agents, contg. softeners, for textiles)

L37 ANSWER 55 OF 63 HCA COPYRIGHT 2006 ACS on STN

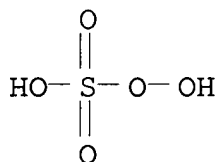
76:155488 Dyeing fibrous materials or polymeric films with azo, anthraquinone, nitro, triarylmethane, or methine dyes. Parsons, Brian N. (Imperial Chemical Industries Ltd.). Brit. GB 1264122 **19720216**, 10 pp. (English). CODEN: BRXXAA. APPLICATION: GB 1968-18122 19680417.

AB Natural and synthetic fabrics were dyed with compds. contg. .geq.1 -XCOCR1:CR2R3 group (X = O or NR, where R = H, alkyl, aryl or aralkyl; R1, R2, and R3 = H or Me). In an example, 4 parts mercerized cotton was treated with 0.04 part 1-amino-4-[3-(2-acrylamido-1-propylsulfamoyl)anilino]-2-anthraquinonesulfonic acid (I) [34762-87-3] in 140 parts H2O. After 10 min at 40.deg. 10 parts **NaCl** was added. After 45 more min 0.1 part potassium persulfate [**10058-23-8**] and 0.05 part sodium bisulfite [7631-90-5] was added, the temp. was raised to 90.deg. and kept 30 min at 90.deg.. After washing and boiling 10 min in 0.2% **aq** . syndet **soln.** a blue dyeing with very good washfastness was obtained. Without K2S2O8 and Na2S2O3 no dye fixation was obtained.

IT **10058-23-8**
(catalysts, for polymn. of acryloyl group-contg. dyes on textile fibers)

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

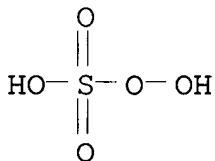
IC D06P
 CC 39 (Textiles)
 IT 62-56-6, uses and miscellaneous 78-67-1 7631-90-5 7722-84-1,
 uses and miscellaneous **10058-23-8**
 (catalysts, for polymn. of acryloyl group-contg. dyes on textile
 fibers)

L37 ANSWER 56 OF 63 HCA COPYRIGHT 2006 ACS on STN
 75:143891 Reduction of sapropel formation in water-bearing plants.
 Salutsky, Murrell L.; Shair, Salem (W. R. Grace and Co.). Ger.
 Offen. DE 2111810 **19710930**, 15 pp. (German). CODEN:
 GWXXBX. PRIORITY: US 19700317.

AB Addn. of KHSO₅ to water-bearing plants diminished the formation of
 mud by different kinds of bacteria and mold fungi. Thus, sapropel
 formation in the tubes of a cigarette factory washing plant (giving
 30% efficiency loss) was reduced up to 33% by adding Oxone (Du
 Pont) contg. 50% KHSO₅ and 50% Na₂SO₄ three days a week for one
 month to maintain an av. concn. of 25-85 ppm active KHSO₅ in the
 water. A mixt. contg. 20 mg Oxone, and 20 mg **NaCl** added
 to sapropel from the washing plant killed 98% bacteria and 96% fungi
 present.

IT **7722-86-3D**, Peroxymonosulfuric acid, **salts**
 (slime control in water systems by)

RN 7722-86-3 HCA
 CN Peroxymonosulfuric acid (8CI, 9CI) (CA INDEX NAME)



IC C02B
 CC 61 (Water)
 IT Water purification

(disinfection, by peroxymonosulfate)

IT 7722-86-3D, Peroxymonosulfuric acid, salts
(slime control in water systems by)

L37 ANSWER 57 OF 63 HCA COPYRIGHT 2006 ACS on STN

72:92656 Comparative corrosion stability of weld joints of chromium and chromium-nickel steels in some industrial media. Maslov, V. A.; Semenova, L. A. (USSR). Svarochnoe Proizvodstvo (12), 42-4 (Russian) 1969. CODEN: SVAPAI. ISSN: 0491-6441.

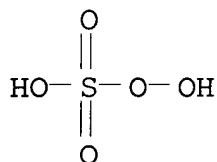
AB Weld joints of stainless steel grades OKh13, Kh18N10T, and Kh17N13M3T are made with electrodes EALM for manual welding, and with welding wire Kh20N10G6 and flux AN-26 for automatic welding. Plates of OKh13 (10-mm thick) and of Kh18N10T and Kh17N13M3T 8 mm thick were used. V-butt joints were made by using the d.c. reverse polarity welding procedure. The corrosion tests were in the following media: (1) KOH 40, K₂CO₃ 8, KMnO₄ 0.25, H₂O 51.75%; (2) ZnSO₄.7H₂O 53, H₂O 47% (satd. soln.); (3) H₂SO₄ 20, FeSO₄.7H₂O 73%; (4) KNO₃ 500, NaCl 5, H₂O 500 g/l. (satd. soln.); (5) CuSO₄.5H₂O 49, H₂SO₄ 8, H₂O 43% (satd. soln.); (6) H₂SO₄ 2.5, ZnSO₄ 0.5, Na₂SO₅ 42, H₂O 55%; (7) (NH₄)₂SO₄ 50, H₂SO₄ 12, H₂O 38%; (8) H₂SO₄ 185, Na₂SO₄ 220, ZnSO₄ 17, H₂O 865 g/l.; (9) NaNO₃ 40, NaNO₂ 0.2, NaCl 0.05, Na₂CO₃ 0.08, H₂O 59%. Tests of 100-200 hr duration were at 20, 50, and 80.degree. and in 600-m3 soln. in all cases. Test pieces 60 .times. 20 .times. (7-9) mm in size were prepd. by grinding with emery papers, degreasing, and drying before testing. If the corrosion rate was <0.1 g/m² hr the steel was considered corrosion resistant. The corrosion rate of the base metal and weld joints of Cr steel OKh13 was the same and <0.0195 g/m² hr in (1), (2), (4), and (9). In the other media it was >0.1 g/m² hr. The corrosion of weld joints is selective and proceeds in the heat-affected zone, the base metal and the deposited metal being relatively stable. The welding procedure does not affect the corrosion resistance. Cr-Ni steel Kh17N13M3T has a high corrosion stability in all media used. Kh18N10T has markedly lower corrosion resistance than Kh17N13M3T in (6), (7), and (8).

IT 15593-29-0

(corrosion by solns. contg., of stainless steel welds)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

CC 55 (Ferrous Metals and Alloys)

IT 497-19-8, reactions 584-08-7 1310-58-3, reactions 7446-20-0
 7631-99-4, reactions 7632-00-0 7722-64-7 7733-02-0
 7757-79-1, reactions 7757-82-6, reactions 7758-99-8 7782-63-0
 7783-20-2, reactions **15593-29-0**
 (corrosion by solns. contg., of stainless steel welds)

L37 ANSWER 58 OF 63 HCA COPYRIGHT 2006 ACS on STN

67:94025 Denture cleaners. Puetzer, Bruno; Finn, Alexander V.; Mackles, Leonard (Tintex Corp.). U.S. US 3337466 **19670822**, 6 pp.
 (English). CODEN: USXXAM. APPLICATION: US 19650527.

AB Powder or tablet denture cleaners comprise mixts. of Oxone 5-40, a H₂O-sol. peroxide of Groups I or II of the Periodic Table 40-5, a chloride, bromide, or iodide of an alkali or alk. earth metal or of NH₃ 0-5, a H₂O-sol. inorg. alk. filler 15-85, a chelating agent 0.1-5, and a wetting agent 0.1-1 parts. An **aq. soln.** of such mixts. have pH .gtoreq.7 and provide O in excess of soly. causing effervescence. Oxone contains approx. **K monopersulfate** 50, KHSO₄ 25, and K₂SO₄ 25 mole %. The chelating agent may be tri-Na nitrilotriacetate monohydrate (I) or tetra-Na ethylenediaminetetra-acetate. Wetting agents may be H₂O-sol. alkylarylsulfonates or sulfates of long chain alcs. Thus, Oxone 30, NaBO₃.H₂O 10, Na₅P₃O₁₀ 15, Na₃PO₄ 10, NaSiO₃.5H₂O 5, Na₂SO₄ 10, Na₂CO₃ 13, **NaCl** 5, I 1.5 Na dodecylbenzenesulfonate 0.25, and Me salicylate 0.25 part, upon dry blending formed a satisfactory denture cleaner. A mixt. of cooking fat 48, oleic acid 2, flour 49.95, and carbon 0.05 parts was applied to dentures and glass slides and the coated articles were subjected to oven temps. Upon adding 4 g. the above compn. to 200 ml. of H₂O at temps. of 80-140.degree.F. effervescence occurred and when the baked articles were held in the solns. for 5-30 min. they were clean and free from stain.

IT **7447-40-7**, biological studies **7647-14-5**,
 biological studies **10058-23-8**
 (denture cleaners contg.)

RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

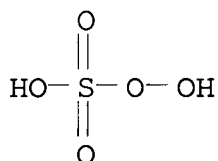
RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

INCL 252099000

CC 63 (Pharmaceuticals)

IT 64-02-8 119-36-8 151-21-3, biological studies 497-19-8,
biological studies 5064-31-3 **7447-40-7**, biological
studies 7601-54-9 7632-04-4 7646-93-7 **7647-14-5**,
biological studies 7722-88-5 7757-82-6, uses and miscellaneous
7758-29-4 7778-80-5, biological studies **10058-23-8**
10213-79-3 18278-90-5 25155-30-0
(denture cleaners contg.)

L37 ANSWER 59 OF 63 HCA COPYRIGHT 2006 ACS on STN

65:57831 Original Reference No. 65:10815b-c,10816a Household purifying
and bleaching agent. Lake, Donald B. (E. I. du Pont de Nemours &
Co.). DE 1221752 **19660728**, 3 pp. (Unavailable).
PRIORITY: US 19600908.

AB The title compds., contg. **K monopersulfate** (I)

and the chloride of an alkali metal in an amt. so that, in the
presence of H₂O, Cl is liberated, also contain acceptors of Cl or
hypochlorite such as amines, amides, amino acids, imides, imines,
amidines, heterocyclic N compds. or N-contg. polymers. Suitable
materials are sulfamic acid, melamine, urea, formamide, or glycine.
The amt. used is 0.36% of the total wt. of I and the **alkali**

chloride. The I is present as the complex salt $\text{KHSO}_5 \cdot \text{K}_2\text{SO}_4$. The components are present in the ratio of 2:1:1. The compn. may also contain an abrasive such as SiO_2 , a dispersing agent, or a detergent. For example, a cleanser for closet bowls contained 40% sulfamic acid, 10% I, 10% **NaCl**, 2% of a dispersing agent, 10% Na_2CO_3 , and 38% Na_2SO_4 . The liquid dispersing agent was mixed with the Na_2SO_4 and the rest of the ingredients were mixed in. An **aq. soln.** contg. 10% of this mixt. had a pH of about 1.8 and gave off no Cl odor. After long standing, the mixt. remained odorless.

IT 7647-14-5, Sodium chloride
(bleaching compns. contg. $2\text{KHSO}_5 \cdot \text{KHSO}_4 \cdot \text{K}_2\text{SO}_4$, Cl-acceptor and)
RN 7647-14-5 HCA
CN Sodium chloride (**NaCl**) (9CI) (CA INDEX NAME)

Cl-Na

IC C11D
CC 53 (Surface-Active Agents and Detergents)
IT 56-40-6, Glycine 75-12-7, Formamide
(bleaching compns. contg. $2\text{KHSO}_5 \cdot \text{KHSO}_4 \cdot \text{K}_2\text{SO}_4$, **NaCl** and)
IT 7647-14-5, Sodium chloride
(bleaching compns. contg. $2\text{KHSO}_5 \cdot \text{KHSO}_4 \cdot \text{K}_2\text{SO}_4$, Cl-acceptor and)
IT 57-13-6, Urea 108-78-1, Melamine 5329-14-6, Sulfamic acid
(bleaching compns. contg. $2\text{KHSO}_5 \cdot \text{KHSO}_4 \cdot \text{K}_2\text{SO}_4$, **NaCl** and)
IT 37222-66-5, Potassium peroxymonosulfate sulfate, $2\text{KHSO}_5 \cdot \text{KHSO}_4 \cdot \text{K}_2\text{SO}_4$
(bleaching compns. contg. **NaCl**, Cl-acceptor and)

L37 ANSWER 60 OF 63 HCA COPYRIGHT 2006 ACS on STN

65:18508 Original Reference No. 65:3400c-e Peroxy compounds. (Schenley Industries, Inc.). NL 6402464 **19650913**, 18 pp.

(Unavailable). APPLICATION: NL 19640310. PRIORITY: NL 19640310.

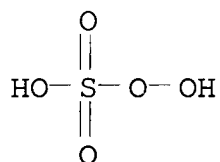
AB Peroxides are used mainly for their oxidn. or bleaching action. These are made in such a way, out of a stable peroxide and an alk. soln., that the **solns.** in H_2O are neutral or slightly alk. For example, K peroxymonosulfate with Na_2CO_3 is used. If these mixts. are used for oxidns., **NaCl** is added. In certain mixts. of K peroxymonosulfate and another peroxy compd., O is quickly released. These mixts. give better results in oxidns. and also when used as a bleach or an antiseptic soln. A soln. of 2% K peroxymonosulfate is acidic and is fairly stable. If the pH is changed by further diln., free O is released at pH 7. The rate of formation of the free O increases with increasing pH and reaches a max. at pH 9. However, in every case, the rate at which the O goes in soln. is greater than the decompn. rate. If another peroxy compd. is mixed with K peroxymonosulfate, the decompn. rate is

greatly increased, esp. at pH >7. Normally to make such a mixt two solid peroxides are used together with a 20-fold excess of Na₂CO₃. As the 2nd peroxide any H₂O-sol. peroxide is useful, except for the ammonium salts of peroxy acids and for urea hydrogen peroxide. The amt. of each of the peroxides is not crit. and can be varied widely. Normally best results are obtained when using an excess of K peroxymonosulfate. As alk. reagents, Na₃ PO₄, Na₂CO₃, and Na₂SO₄ are used in amts. enough to give a pH >7. The amt. normally used is 0.8-2 parts alk. reagent for every part of peroxide. This is sufficient to bring the pH to 8-11.

IT 10058-23-8, Potassium peroxymonosulfate, KHSO₅
(bleaching compn. contg.)

RN 10058-23-8 HCA

CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IC C1LD

CC 17 (Industrial Inorganic Chemicals)

IT Bactericides, **Disinfectants** and Antiseptics
Bleaching agents
(peroxides in)

IT 497-19-8, Sodium carbonate, Na₂CO₃ 7632-04-4, Sodium perborate
7727-21-1, Potassium peroxydisulfate 7757-82-6, Sodium sulfate,
Na₂SO₄ 10058-23-8, Potassium peroxymonosulfate, KHSO₅
18278-90-5, Sodium peroxydiphosphate
(bleaching compn. contg.)

L37 ANSWER 61 OF 63 HCA COPYRIGHT 2006 ACS on STN

64:105843 Original Reference No. 64:20010b-d Peroxide antiseptic,
bleaching, and cleaning agent. Puetzer, Bruno; Mackles, Leonard;
Finn, Alexander V. (Schenley Industries, Inc.). BE 661582
19650716, 28 pp. (Unavailable). PRIORITY: US 19620405.

AB Effervescent O is released in an alk. soln. contg. K
monopersulfate 5-40, peroxides 40-50, alk. compds. 15-85,
halides 0-5, chelates 0.1-5.0, and surfactants 0.1-1.0 part. A
typical dry mixt. (I) contains Oxone (30-mesh) 30.0, NaBO₃ (30-mesh)
10.0, Na tripolyphosphate (95% 100-mesh) 20.0 Na₂CO₃-NaHCO₃.2H₂O

(100-mesh) 34.0, nitrilotriacetic acid (powd.) 0.5, tri-Na salt of an alkylarenesulfonate 0.25, Me salicylate (U.S.P.) 0.25, and **NaCl** (98% 100-mesh) 5.0 parts. Oxone is a com. compd.

furnishing 4.5% O and contg. **K monopersulfate**

50, KHSO₄ 25, and K₂SO₄ 25 mole %. **Aq. solns.**

contg. 2 and 1.5 wt.% I have 2.15-2.30 wt.% O and 3.12 wt.% Cl, resp., available. An **aq. soln.** of I has

bactericidal, detergent, and bleaching properties and is effective in the cleaning of dentures. I can be pelleted.

CC 53 (Surface-Active Agents and Detergents)

IT Bactericides, **Disinfectants** and Antiseptics
(peroxides as, cleaning compns. contg.)

L37 ANSWER 62 OF 63 HCA COPYRIGHT 2006 ACS on STN

64:66360 Original Reference No. 64:12364f-g Method of purifying aqueous liquid. Gard, Andrew J. US 3232869 **19660201**, 3 pp.

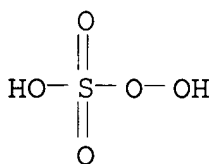
(Unavailable). APPLICATION: US 19610427. PRIORITY: US 19610427.

AB A method is described for providing free I to purify and **disinfect** water supplies and swimming pools. The free I is formed by reacting a compd. selected from a class consisting of peroxymonosulfates and peroxydisulfates with an iodide in a soln. of pH 7-8. An outdoor swimming pool of 26,500 gal. capacity was treated with 11.81 g. of NaI (0.1 ppm. I-) and 1000 g. of Na peroxydisulfate (8.0 ppm. S₂O₈²⁻). An addnl. 1220 g. of Na peroxydisulfate was added every 48 hrs. over a period of 2 months. Under intense sunlight and high ambient temps., 10-20 g. of NaI was required every 3 or 4 days to replace the free I lost. The free I content of the pool was maintained at 0.1 ppm. Without sunlight, the reaction was catalyzed by use of uv radiation.

IT **15593-29-0**, Sodium peroxymonosulfate, Na₂SO₅
(reaction with iodide for water treatment)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IT **7681-82-5**, Sodium iodide **10102-68-8**, Calcium iodide **10377-58-9**, Magnesium iodide

(reaction with peroxysulfates for I for water treatment)

RN 7681-82-5 HCA
CN Sodium iodide (NaI) (9CI) (CA INDEX NAME)

I-Na

RN 10102-68-8 HCA
CN Calcium iodide (CaI₂) (9CI) (CA INDEX NAME)

I-Ca-I

RN 10377-58-9 HCA
CN Magnesium iodide (MgI₂) (9CI) (CA INDEX NAME)

I-Mg-I

INCL 210062000
CC 24 (Water)
IT Swimming pools
(**disinfection** of, by I formed by iodide-peroxysulfate reaction)
IT Water, purification or conditioning of
(**disinfection**, I formed by iodide-peroxysulfate reaction in)
IT 7553-56-2, Iodine
(in water **disinfection** or purification, formed by iodideperoxysulfate reaction)
IT 15593-29-0, Sodium peroxymonosulfate, Na₂SO₅
(reaction with iodide for water treatment)
IT 7681-82-5, Sodium iodide 10102-68-8, Calcium iodide 10377-58-9, Magnesium iodide
(reaction with peroxysulfates for I for water treatment)

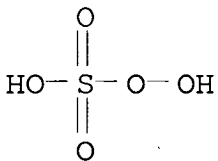
L37 ANSWER 63 OF 63 HCA COPYRIGHT 2006 ACS on STN
57:63807 Original Reference No. 57:12763d-f Bleaching
compositions. Lake, Donald B.; Shaffer, Peter T. B. (E. I. du Pont de Nemours & Co.). US 3048546 19620807, 3 pp.
(Unavailable). APPLICATION: US 19600720.
AB A solid bleaching compn., that readily dissolves in water to give free O, consists essentially of monopersulfate compns. and an alkali **metal chloride** salt to increase the bleaching and cleansing actions. Thus, 9.6 g. of a compn. contg. the equiv. of 45% KHSO₅, 27% KHSO₄, and 28% K₂SO₄ was dissolved in 1500 ml. of distd. water to give a soln. with pH 2.5-2.7 and an active O concn. of 300 p.p.m. This soln. was divided into 3 portions and there was added to portion (a) none, (b) 12 p.p.m. **NaCl**, and (c) 60

p.p.m. **NaCl**. The solns. were heated to and maintained at 180.degree.F. and in each was immersed a strip of heat-discolored nylon with a brightness of 69.2. After 45 min. the strips were washed in cold water and dried. The increases in brightness for (a), (b), and (c) were 7.4, 10.3, and 12.9 points, resp.

IT **7647-14-5**, Sodium chloride
 (bleaching compns. from peroxymonosulfate and, O-releasing, for bactericidal and cleaning use)
 RN 7647-14-5 HCA
 CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

IT **10058-23-8**, Potassium peroxymonosulfate, KHSO5
 (bleaching compns. with KHSO4, K2SO4 and **NaCl**, O-releasing)
 RN 10058-23-8 HCA
 CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

CC 48 (Textiles)
 IT Alkali metal peroxymonosulfates
 (bleaches from **NaCl** and, O-releasing)
 IT **7647-14-5**, Sodium chloride
 (bleaching compns. from peroxymonosulfate and, O-releasing, for bactericidal and cleaning use)
 IT **10058-23-8**, Potassium peroxymonosulfate, KHSO5
 (bleaching compns. with KHSO4, K2SO4 and **NaCl**, O-releasing)

=> d his 143-

FILE 'HCA' ENTERED AT 13:42:42 ON 24 JAN 2006

L43 528 S (PEROXYMONOSULFURIC# OR PEROXYMONOSULFATE# OR MONOPERSU
 L44 100 S L43 AND (L8 OR L13)

L45 12 S L44 NOT (L35 OR L36 OR L37 OR L38)
L46 10 S L45 AND (1840-2003/PY OR 1840-2003/PRY)

=> d l46 1-10 ti

L46 ANSWER 1 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Virucidal and bactericidal composition comprising a dry mixture of an inorganic halide and an oxidizing agent to generate hypohalite ions on dissolution in water

L46 ANSWER 2 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Hair care composition comprising antioxidants

L46 ANSWER 3 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Inhibition of sulfide inclusion in slag in coal gasification

L46 ANSWER 4 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI A biocidal composition containing an inorganic halide, an oxidizing agent, sulfamic acid, and a phosphate

L46 ANSWER 5 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Broad-range virucidal disinfectant powder which forms hypohalites in aqueous solution without evolution of chlorine

L46 ANSWER 6 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Fungus-removing compositions

L46 ANSWER 7 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Modification of the upper surface of flexographic printing plates

L46 ANSWER 8 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Paper chromatography and spot tests - a combination of techniques: qualitative analysis of inorganic oxyanions with potassium iodide as a detection reagent

L46 ANSWER 9 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Agent and method for sterilizing ion exchange materials for water softening

L46 ANSWER 10 OF 10 HCA COPYRIGHT 2006 ACS on STN
TI Peroxymonosulfate-base bleaching and bleaching detergent compositions

=> d l46 1,2,4,5,6,10 cbib abs hitstr hitind

L46 ANSWER 1 OF 10 HCA COPYRIGHT 2006 ACS on STN

137:381248 Virucidal and bactericidal composition comprising a dry mixture of an inorganic halide and an oxidizing agent to generate hypohalite ions on dissolution in water. Chowdhary, Naweed Ahmed (UK). Brit. UK Pat. Appl. GB 2374012 A1 **20021009**, 7 pp. (English). CODEN: BAXXDU. APPLICATION: GB 2002-4650 20020228.

AB A dry, water-sol. biocidal and particularly virucidal compn. comprises a system of an inorg. halide and an oxidizing agent generating hypohalite ions therefrom in aq. soln. It preferably contains two surfactants and two dyes to indicate ready for use. The prepn. contains no org. acids, and may be in powder form. The oxidizing agent is preferably a persulfate salt (esp. the potassium triple salt $2\text{KHSO}_5 + \text{KHSO}_4 + \text{K}_2\text{SO}_4$) and may constitute about 61-65 % of the compn. by wt. The halide is preferably potassium chloride and may constitute about 25-28.5% of the compn. by wt. Two preferred surfactants are sodium alkyl benzene sulfonate and sodium alkyl sulfate. The compn., on dissolving in water, is biocidally active against viruses and bacteria, and may be used in a farming environment.

IT **7447-40-7**, Potassium Chloride, biological studies
(virucidal and bactericidal compn. comprising inorg. halide and oxidizing agent generating hypohalite on dissoln. in water)

RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

IC ICM A01N059-08

ICI A01N059-08, A01N059-02

CC 5-2 (Agrochemical Bioregulators)

IT **7447-40-7**, Potassium Chloride, biological studies
37222-66-5, **Potassium peroxymonosulfate** sulfate,
 $2\text{KHSO}_5.\text{KHSO}_4.\text{K}_2\text{SO}_4$
(virucidal and bactericidal compn. comprising inorg. halide and oxidizing agent generating hypohalite on dissoln. in water)

L46 ANSWER 2 OF 10 HCA COPYRIGHT 2006 ACS on STN

132:141685 Hair care composition comprising antioxidants.
Venkateswaran, Ananthanarayan; Tian, Minmin; Yokogi, Junichi (The Procter & Gamble Company, USA). PCT Int. Appl. WO 2000006094 A1 **20000210**, 47 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO

1998-US15756 19980729.

AB The present invention relates to a hair care compn. comprising an org. antioxidant, an inorg. reducing agent selected from the group consisting of alkali metal sulfites, alkali metal bisulfites, **alkali metal monopersulfates, alkali metal bisulfates**, ammonium sulfite, ammonium bisulfite, ammonium persulfate, and mixts. thereof; a hair conditioning agent, and an aq. carrier. The use of inorg. reducing agents substantially reduces malodor and/or discoloration of the hair care compn. due to the oxidn. of org. antioxidants over time. A conditioning shampoo contained ammonium laureth-3-sulfate 10, ammonium lauryl sulfate 2, N-cocoyl-L-glutamate 4, cocamidopropylbetaine 4, ethylene glycol distearate 1.5, cetyl alc. 0.5, stearyl alc. 0.4, cocamide MEA 1.5, silicone emulsion (dimethiconol) 2, silicone emulsion (polydimethylsiloxane) 2, perfumes 0.5, panthenol 0.025, panthenyl Et ether 0.25, vitamin E 0.005, sodium sulfite 0.1, DMDM hydantoin 0.37, **NaCl** 0.2, and deionized water q.s. to 100 %.

IC ICM A61K007-06

CC 62-3 (Essential Oils and Cosmetics)

L46 ANSWER 4 OF 10 HCA COPYRIGHT 2006 ACS on STN

108:226911 A biocidal composition containing an inorganic halide, an oxidizing agent, sulfamic acid, and a phosphate. Auchincloss, Thomas Ralph (UK). PCT Int. Appl. WO 8705187 A1 **19870911**, 19 pp. DESIGNATED STATES: W: DK, JP, KR, US; RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1987-GB145 19870302. PRIORITY: GB 1986-5129 19860301.

AB A dry, water-sol. biocidal compn. comprises (1) a water-sol. inorg. halide 0.01-5, (2) an oxidizing agent which in aq. soln. reacts with the halide to generate hypohalite ions 25-60, (3) sulfamic acid 3-8, (4) a nonreducing org. acid 0-20, (5) an anhyd. alkali metal phosphate 10-30 parts by wt.; the pH of a 1 wt.% aq. soln. of the compn. is 1.2-5.5. A compn. contained **NaCl** 1.5, K persulfate triple salt 50, sulfamic acid 5, malic acid 10, Na hexametaphosphate 18.5, and Na dodecylbenzenesulfonate 15 parts by wt. The compn. showed a broad spectrum of virucidal activity at dilns. of 1:50-1300. The compn. was stable as a dry mixt. for .gtoreq.24 wk at 20.degree. and 37.degree., resp. The compn. at 0.5% by wt. in drinking water of poultry did not affect body wt. gain in birds. Spraying a 0.5% by wt. soln. of the compn. in livestock building did not cause inflammatory or any other adverse response in the skin or mucous membranes of the animals.

IT **7647-14-5**, Sodium chloride (**NaCl**), biological studies

(virucidal compn. contg. oxidizing agent and)

RN 7647-14-5 HCA

CN Sodium chloride (**NaCl**) (9CI) (CA INDEX NAME)

Cl-Na

IC ICM A01N059-00
CC 63-8 (Pharmaceuticals)
IT **7647-14-5**, Sodium chloride (**NaCl**), biological studies
(virucidal compn. contg. oxidizing agent and)
IT 37222-66-5, **Potassium peroxymonosulfate** sulfate
(K5[HSO3(O2)][SO3(O2)](HSO4)2)
(virucidal soln. contg. inorg. halide and)

L46 ANSWER 5 OF 10 HCA COPYRIGHT 2006 ACS on STN

108:44057 Broad-range virucidal disinfectant powder which forms hypohalites in aqueous solution without evolution of chlorine. Auchincloss, Thomas Ralph (UK). Brit. UK Pat. Appl. GB 2187098 A1 **19870903**, 8 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1987-4858 19870302. PRIORITY: GB 1986-5129 19860301.

AB A dry, water-sol. compn. comprises a water-sol. inorg. halide 0.1-5, an oxidizing agent which in water reacts with the halide to generate a hypohalite ion 25-60, sulfamic acid 3-8, a nonreducing org. acid 0-20, and an anhyd. alkali metal phosphate which gives pH 1.2-5.5 in 1% aq. soln. 10-30 parts by wt. The compn. in 1:1300 and in 1:450 diln. gives a 4 log redn. in virus titer against Picornaviridae (foot and mouth disease) and against Coronaviridae (transmissible gastroenteritis). Short term exposure under simulated farm conditions with respect to Escherichia coli, Staphylococcus aureus, Bacillus cereus, and Pseudomonas aeruginosa left 13, 15, 5, and 0 surviving organisms, resp., after a 5 min exposure time.
IT **7647-14-5**, Sodium chloride (**NaCl**), biological studies
(virucidal disinfectant powder contg. oxidizing agent and, for hypohalite generation without chlorine evolution)

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

IC ICM A01N025-00
CC 63-6 (Pharmaceuticals)
IT 37222-66-5, **Potassium peroxymonosulfate** sulfate
(K5[HSO3(O2)][SO3(O2)](HSO4)2)
(virucidal disinfectant powder contg. halide and, for hypohalite generation without chlorine evolution)
IT **7647-14-5**, Sodium chloride (**NaCl**), biological studies
(virucidal disinfectant powder contg. oxidizing agent and, for

hypohalite generation without chlorine evolution)

L46 ANSWER 6 OF 10 HCA COPYRIGHT 2006 ACS on STN
107:9395 Fungus-removing compositions. Nishiguchi, Hisao; Nakagawa, Junosuke (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 62004793 A2 19870110 Showa, 4 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1985-144364 19850701.
AB The title compns., useful for cleaning bathrooms, etc., contain **peroxymonosulfates** 5-50, **alkali** metal, alk. earth metal, and/or ammonium halides 0.01-10, alkali metal- or ammonium hydroxides, carbonates, and/or silicates 0.1-20, and water 50-95%. A mixt. of Oxone 20.0, MgCl₂ 0.5, NaOH 2.0, and water 78.0%, having pH 8.0, gave 78.3% removal of fungus, vs. 40.0 without MgCl₂.
IT 7447-40-7, Potassium chloride, uses and miscellaneous
7647-14-5, Sodium chloride, uses and miscellaneous
7786-30-3, Magnesium chloride, uses and miscellaneous
(fungus-removing cleaners contg. peroxymonosulfates and)
RN 7447-40-7 HCA
CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7647-14-5 HCA
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7786-30-3 HCA
CN Magnesium chloride (MgCl₂) (9CI) (CA INDEX NAME)

Cl-Mg-Cl

IC ICM C11D007-60
ICI C11D007-60, C11D007-18, C11D007-10, C11D007-06, C11D007-12, C11D007-14
CC 46-6 (Surface Active Agents and Detergents)
IT 497-19-8, Disodium carbonate-, uses and miscellaneous 1310-73-2, Sodium hydroxide, uses and miscellaneous 6834-92-0, Sodium metasilicate 7447-40-7, Potassium chloride, uses and miscellaneous 7647-14-5, Sodium chloride, uses and miscellaneous 7786-30-3, Magnesium chloride, uses and miscellaneous
(fungus-removing cleaners contg. peroxymonosulfates and)

L46 ANSWER 10 OF 10 HCA COPYRIGHT 2006 ACS on STN

90:40560 Peroxymonosulfate-base bleaching and bleaching detergent compositions. Gray, Frederick W. (Colgate-Palmolive Co., USA). U.S. US 4123376 **19781031**, 13 pp. Cont.-in-part of U.S. 4,028,263. (English). CODEN: USXXAM. APPLICATION: US 1976-702395 19760706.

AB A compd. such as p-toluenesulfonamide (I) [70-55-3] or 5,5-dimethylhydantoin [77-71-4] minimized degrdn. of fabric dyes and fluorescent brighteners and inhibits dye transfer during the bleaching of white and colored fabrics by a peroxymonosulfate compn. (Oxone) contg. NaBr activator. Thus, a bleach-detergent compn. contained Na tridecylbenzenesulfonate 13, Na5P3O10 24, Na silicate 7, CM-cellulose 0.5, fluorescent brightener 0.3, Na2CO3 17, NaBr 5, Oxone 20, I 3, and water 10 parts.

IT **7647-15-6**, uses and miscellaneous
(bleaching compns. contg. peroxymonosulfate and, for white and colored fabrics)

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

IC C11D007-56

INCL 252099000

CC 46-5 (Surface Active Agents and Detergents)

ST peroxymonosulfate bleaching dye stability; **sodium** bromide
peroxymonosulfate bleaching; toluenesulfonamide
peroxymonosulfate bleaching; hydantoin peroxymonosulfate bleaching

IT 70-55-3 77-71-4 **7647-15-6**, uses and miscellaneous
(bleaching compns. contg. peroxymonosulfate and, for white and colored fabrics)

=> d 138 1-89 ti

L38 ANSWER 1 OF 89 HCA COPYRIGHT 2006 ACS on STN

TI Manufacture of crystalline nanometer tin oxide thin films on substrates by liquid-phase deposition

L38 ANSWER 2 OF 89 HCA COPYRIGHT 2006 ACS on STN

TI Method for reducing chemical oxygen contaminants in water

L38 ANSWER 3 OF 89 HCA COPYRIGHT 2006 ACS on STN

TI Combinations and methods for treating neoplasms

L38 ANSWER 4 OF 89 HCA COPYRIGHT 2006 ACS on STN

TI Detergent tablet comprising two layers reactive during dissolution, separated by a barrier layer

- L38 ANSWER 5 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Device and method for pressure-driven plug transport and reaction
- L38 ANSWER 6 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Apparatus for synthesizing ferrate
- L38 ANSWER 7 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Dual layer tablet, method of making and use thereof
- L38 ANSWER 8 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Nitric acid-free pickling agent for stainless steel
- L38 ANSWER 9 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Acid for chemical solution of lead frame
- L38 ANSWER 10 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Crosslinked polysaccharide-based fracturing fluids for petroleum wells containing reducing sugars as activators for gel breaking agents
- L38 ANSWER 11 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Spectroscopic determination of citric acid and its salts
- L38 ANSWER 12 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Device and method for pressure-driven plug transport and reaction
- L38 ANSWER 13 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Sulfonated conducting polymer-grafted carbon material for fuel cell applications
- L38 ANSWER 14 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Detergent tablet comprising two layers reactive in dissolution separated by a barrier layer
- L38 ANSWER 15 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Catalytic osmium-assisted oxidative cleavage of olefins using peroxymonosulfuric acid and salts thereof.
- L38 ANSWER 16 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Nonconventional emulsion polymerization of methyl methacrylate. Effect of Cu(II)/histidine complex catalyst and different peroxo-salts
- L38 ANSWER 17 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Methods for preparation of hydroxycucurbituril derivatives and their uses

- L38 ANSWER 18 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Process for preparing fumaric acid monoalkyl ester
- L38 ANSWER 19 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Methods of using electron active compounds for managing conditions afflicting mammals
- L38 ANSWER 20 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Olefin epoxidation catalyzed by novel nickel(II)-complexes containing tridentate Schiff-base ligands
- L38 ANSWER 21 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Selective oxidation of carbohydrates by 4-AcNH-TEMPO/peracid systems
- L38 ANSWER 22 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Reactivity of bulged bases in duplex DNA with redox-active nickel and cobalt complexes
- L38 ANSWER 23 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Emulsifier-free emulsion polymerization of acrylonitrile catalyzed by Co(II)/glycine chelate complex
- L38 ANSWER 24 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Air and water purification using continuous breakpoint halogenation and peroxygenation
- L38 ANSWER 25 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Copper etchant and method for fabricating a substrate for an electronic device using the same
- L38 ANSWER 26 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Sprayable phosphate cementitious coatings and a method and apparatus for the production thereof
- L38 ANSWER 27 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Method of treating industrial waste waters
- L38 ANSWER 28 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Method of treating semiconductor wastewaters
- L38 ANSWER 29 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Pickling agent for scale removal of stainless steel
- L38 ANSWER 30 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Bactericide combinations in detergents
- L38 ANSWER 31 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Hapten-coagulation agent-antineoplastic agent combinations for

treating neoplasms

- L38 ANSWER 32 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Stabilization of arsenic-contaminated materials
- L38 ANSWER 33 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Printed circuit board with continuous connective bumps
- L38 ANSWER 34 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Aqueous etchant, electric circuit board, and its manufacture using same etchant
- L38 ANSWER 35 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Chemical-mechanical polishing of diffusion barriers or liners for metalized copper integrated circuits
- L38 ANSWER 36 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Synthesis of polyacrylonitrile (PAN) catalyzed by Ni(II)/glycine chelate complex through emulsion polymerization initiated by monopersulphate
- L38 ANSWER 37 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Effect of in situ developed CU(II)/alanine chelate complex on the emulsion polymerization of acrylonitrile initiated by monopersulfate
- L38 ANSWER 38 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Characterization of Spiroiminodihydantoin as a Product of One-Electron Oxidation of 8-Oxo-7,8-dihydroguanosine
- L38 ANSWER 39 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Effect of oxidants on olefin epoxidation catalyzed by a new nickel(II)-Schiff base complex
- L38 ANSWER 40 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Processes for producing cyanophenyl derivatives
- L38 ANSWER 41 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Solution for one-step pretreatment of aluminum material before oxidation treatment
- L38 ANSWER 42 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Removal of copper and nickel impurity from chromium recovered from metal scrap
- L38 ANSWER 43 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Chemiluminescence from fluorescent organic compounds induced by cobalt(II) catalyzed decomposition of peroxomonosulfate

- L38 ANSWER 44 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Etchant and roughening of copper surfaces and production of circuit boards using it
- L38 ANSWER 45 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Ni(II).cntdot.Xaa-Xaa-His Induced DNA Cleavage: Deoxyribose Modification by a Common "Activated" Intermediate Derived from KHSO₅, MMPP, or H₂O₂
- L38 ANSWER 46 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Hair treatment preparations
- L38 ANSWER 47 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Water treatment method
- L38 ANSWER 48 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Metal-mediated oxidation of guanines in DNA and RNA: a comparison of cobalt(II), nickel(II) and copper(II) complexes
- L38 ANSWER 49 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Ionomer-encapsulated breaker chemical
- L38 ANSWER 50 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Encapsulated alkali metal peroxy salt particles, and their manufacture and use
- L38 ANSWER 51 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Chiral catalysts, catalytic oxidation and disproportionation reactions, and methods of producing epoxychromans and taxol
- L38 ANSWER 52 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Process for producing carboxylic acids by reaction of alkanes with carbon monoxide
- L38 ANSWER 53 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI gels for submerged gel electrophoresis
- L38 ANSWER 54 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Oxidation of alcohols by ruthenium(II)-complexes
- L38 ANSWER 55 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Oxidative degradation of cationic metalloporphyrins in the presence of nucleic acids: a way to binding constants?
- L38 ANSWER 56 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Grafting onto wool fibers: graft copolymerization of methyl methacrylate onto wool fibers initiated by **potassium monopersulfate**/iron(III) couple

- L38 ANSWER 57 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Graft copolymerization with a new class of acidic peroxo salt as initiator: VI. Grafting of acrylonitrile onto jute fibers using **potassium monopersulfate** catalyzed by iron(III)
- L38 ANSWER 58 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI **Potassium monopersulfate**-initiated grafting of acrylic acid onto jute fibers
- L38 ANSWER 59 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI On the mechanism of the Gif and Gif-Orsay systems for the selective substitution of saturated hydrocarbons
- L38 ANSWER 60 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI **Potassium monopersulfate** and a water-soluble manganese porphyrin complex, [Mn(TMPyP)](OAc)₅, as an efficient reagent for the oxidative cleavage of DNA
- L38 ANSWER 61 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Analytical control of plants for the production of high-purity desalinated water
- L38 ANSWER 62 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Graft copolymerization with a new class of acidic peroxo salt: grafting of methyl methacrylate onto cotton cellulose using **potassium monopersulfate**
- L38 ANSWER 63 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Influence of pyrogallol chelate complex of copper(II) on **potassium monopersulfate** decomposition and acrylonitrile polymerization in solution
- L38 ANSWER 64 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Household laundry detergent with dual strength bleach
- L38 ANSWER 65 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Reaction of polymerization initiators with metal salts and metal complexes in solutions. Interaction of **potassium monopersulfate** with copper(II) salts and copper(II)/hydroquinone couple
- L38 ANSWER 66 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Graft copolymerization with a new class of acidic peroxo salt. III: Grafting of acrylic acid onto cotton cellulose using **potassium monopersulfate** as initiator
- L38 ANSWER 67 OF 89 HCA COPYRIGHT 2006 ACS on STN

- TI Influence of copper(II)/hydroquinone couple on **potassium monopersulfate** decomposition and polymerization of acrylonitrile in solution
- L38 ANSWER 68 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Color photographic photosensitive material and bleaching solution
- L38 ANSWER 69 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Influence of copper(II)/salicylaldehyde couple on **potassium monopersulfate** decomposition and acrylonitrile polymerization in solution
- L38 ANSWER 70 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Battery cell with increased capacity, open circuit voltage and start-up time
- L38 ANSWER 71 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Influence of .alpha.-naphthol chelate complex of copper(II) on **potassium monopersulfate** decomposition and vinyl polymerization of acrylonitrile in solution
- L38 ANSWER 72 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Enzyme-containing powdered detergents
- L38 ANSWER 73 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Treating clay in order to remove mineral titanium-based impurities
- L38 ANSWER 74 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Photographic persulfate bleach baths
- L38 ANSWER 75 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Acidic peroxo salts: a new class of initiators for vinyl polymerization. IV. Kinetics of polymerization of methyl methacrylate initiated by **potassium monopersulfate** catalyzed by silver(I)
- L38 ANSWER 76 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Iron discoloration of acrylic resin exposed to chlorhexidine or tannic acid: a model study
- L38 ANSWER 77 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Cleanser with improved afterodor and tarnish resistance
- L38 ANSWER 78 OF 89 HCA COPYRIGHT 2006 ACS on STN
- TI Acidic peroxo salts: a new class of initiators for vinyl polymerization. III. Kinetics of polymerization of methyl methacrylate initiated by **potassium monopersulfate** catalyzed by cobalt(II)

- L38 ANSWER 79 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Acidic peroxo salts. A new class of initiators for vinyl polymerization. II. Kinetics of polymerization of acrylonitrile initiated by **potassium monopersulfate** catalysed by manganese(2+)
- L38 ANSWER 80 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Extrinsic dental stain caused by stannous fluoride
- L38 ANSWER 81 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Acidic peroxo salts. A new class of initiators for vinyl polymerization. I. Kinetics of polymerization of acrylonitrile initiated by **potassium monopersulfate** catalyzed by silver(I)
- L38 ANSWER 82 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Chemical plaque control and extrinsic discoloration of teeth
- L38 ANSWER 83 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Azines
- L38 ANSWER 84 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Shrink- and felt-proofing of wool
- L38 ANSWER 85 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Effervescent cleansers for dentures
- L38 ANSWER 86 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Smokestack aerosol gas purifier
- L38 ANSWER 87 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Dependence of the temperature of a IV-III phase transformation of ammonium nitrate in complex fertilizers on moisture content
- L38 ANSWER 88 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Bleaching agents for discolored textiles
- L38 ANSWER 89 OF 89 HCA COPYRIGHT 2006 ACS on STN
TI Oxidation of organic substances by potassium peroxymonosulfate

=> d 138 2,8,24,27,28,29,30,42,47,64,74,77,86 cbib abs hitstr hitind

- L38 ANSWER 2 OF 89 HCA COPYRIGHT 2006 ACS on STN
143:199364 Method for reducing chemical oxygen contaminants in water. Martin, Perry L.; Martin, Roy W. (USA). U.S. Pat. Appl. Publ. US 2005167635 A1 20050804, 24 pp., Cont.-in-part of U.S. Ser. No.

953,967. (English). CODEN: USXXCO. APPLICATION: US 2005-60511
20050217. PRIORITY: US 2003-2003/PV49508U 20030813; US
2004-2004/878167 20040628; US 2004-2004/953967 20040928.

AB A method of cleaning water systems and an oxidizer (e.g., a
potassium monopersulfate compn.) that is used for
the method are presented. When **potassium
monopersulfate** is used as the oxidizer, it preferably has a
low concn. (.ltbbrac.0.5 wt. %) of potassium oxodisulfate byproduct
that causes irritation. The low potassium oxodisulfate concn.
allows the compn. to be used more liberally than conventional
potassium monopersulfate. To control the release
rate of the oxidizer, the oxidizer is formed into a tablet and
coated with a material that dissolves at a desired rate. The
coating material controls the rate at which the oxidizer is released
when placed in contact with a solvent. The coated tablets may be
aggregated under high pressure to form an agglomerate compn. A
binder and/or a filler material may be added when forming the
agglomerate compn. to achieve a desired oxidizer release rate.

IT 7447-40-7, Potassium chloride, biological studies
7447-41-8, Lithium chloride, biological studies
7647-14-5, Sodium chloride, biological studies
7786-30-3, Magnesium chloride, biological studies
10043-52-4, Calcium chloride, biological studies
10058-23-8

(method for reducing chem. oxygen contaminants in water for
swimming pools and spas)

RN 7447-40-7 HCA

CN Potassium chloride (KCl) (9CI) (CA INDEX NAME)

Cl-K

RN 7447-41-8 HCA

CN Lithium chloride (LiCl) (9CI) (CA INDEX NAME)

Cl-Li

RN 7647-14-5 HCA

CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7786-30-3 HCA

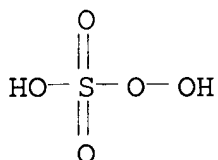
CN Magnesium chloride (MgCl₂) (9CI) (CA INDEX NAME)

Cl-Mg-Cl

RN 10043-52-4 HCA
CN Calcium chloride (CaCl₂) (9CI) (CA INDEX NAME)

Cl-Ca-Cl

RN 10058-23-8 HCA
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IC ICM A01N001-00
INCL 252186100
CC 61-5 (Water)
IT 144-55-8, Sodium bicarbonate, biological studies 298-14-6,
Potassium bicarbonate 471-34-1, Calcium carbonate, biological
studies 497-19-8, Sodium carbonate, biological studies 546-93-0,
Magnesium carbonate 554-13-2, Lithium carbonate 584-08-7,
Potassium carbonate 1305-62-0, Calcium hydroxide, biological
studies 1305-78-8, Calcium oxide, biological studies 1309-42-8,
Magnesium hydroxide 1309-48-4, Magnesia, biological studies
1310-58-3, Potassium hydroxide, biological studies 1310-65-2,
Lithium hydroxide 1312-76-1, Potassium silicate 1327-41-9,
Polyaluminum chloride 1343-88-0, Magnesium silicate 1344-09-8,
Sodium silicate 1344-95-2, Calcium silicate 1398-61-4, Chitin
2090-64-4, Magnesium bicarbonate 3983-19-5, Calcium bicarbonate
5006-97-3, Lithium bicarbonate 7000-29-5, Calcium magnesium
carbonate **7447-40-7**, Potassium chloride, biological
studies **7447-41-8**, Lithium chloride, biological studies
7487-88-9, Magnesium sulfate, biological studies **7647-14-5**
, Sodium chloride, biological studies 7664-93-9, Sulfuric acid,
biological studies 7722-84-1, Hydrogen peroxide, biological
studies 7727-21-1, Potassium persulfate 7778-18-9, Calcium
sulfate 7778-80-5, Potassium sulfate, biological studies

7786-30-3, Magnesium chloride, biological studies
9000-69-5, Pectin 9002-18-0, Agar 9002-89-5, Polyvinylalcohol
9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide 9004-34-6,
Cellulose, biological studies 9004-54-0, Dextran, biological
studies 9005-32-7, Alginic acid 9012-36-6, Agarose 9012-76-4,
Chitosan 10043-01-3, Aluminum sulfate 10043-52-4,
Calcium chloride, biological studies 10058-23-8
10102-24-6, Lithium silicate 10377-48-7, Lithium sulfate
11138-49-1, Sodium aluminate 12057-24-8, Lithium oxide, biological
studies 12136-45-7, Potassium oxide, biological studies
12627-13-3, Silicate 25322-68-3, Polyethylene glycol 26099-09-2,
Polymaleic acid 50815-87-7, Sodium borosilicate 59794-15-9,
Calcium borosilicate 162996-24-9, Boron magnesium silicon oxide
185148-87-2, Boron lithium silicon oxide 861928-96-3, Boron
potassium silicon oxide
(method for reducing chem. oxygen contaminants in water for
swimming pools and spas)

L38 ANSWER 8 OF 89 HCA COPYRIGHT 2006 ACS on STN

142:160223 Nitric acid-free pickling agent for stainless steel.

Takenaka, Tsutomu; Sato, Eiji (Parker Corp., Japan). Jpn. Kokai
Tokkyo Koho JP 2005029828 A2 20050203, 6 pp. (Japanese). CODEN:
JKXXAF. APPLICATION: JP 2003-195248 20030710.

AB The agent contains 10-200 g/L of H₂SO₄ or 5-150 g/L of HCl as a main
component, 1-40 g/L of HF, fluorosilicic acid, and/or NaF, and 5-40
g/L of Fe³⁺ and is obtained by addn. of thickeners (e.g.,
polysaccharide, org. polymer, bentonite, montmorillonite) to have
paste condition. Preferably, the agent further contains 5-15 g/L of
H₂O₂ and/or 5-10 g/L of Na persulfate. Scales locally generated on
the steel is removed by the agent without dipping in a pickling
bath.

IT 7681-49-4, Sodium fluoride, uses 15593-29-0,
Sodium persulfate

(agent contg.; nitric acid-free paste-type pickling agent for
local scale removal from stainless steel)

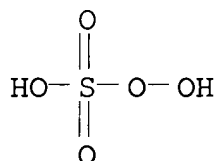
RN 7681-49-4 HCA

CN Sodium fluoride (NaF) (9CI) (CA INDEX NAME)

F-Na

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

- IC ICM C23G001-08
- CC 55-6 (Ferrous Metals and Alloys)
- IT 7647-01-0, Hydrochloric acid, uses 7664-39-3, Hydrofluoric acid, uses 7664-93-9, Sulfuric acid, uses **7681-49-4**, Sodium fluoride, uses 7722-84-1, Hydrogen peroxide, uses 10028-22-5, Iron(III) sulfate **15593-29-0**, Sodium persulfate 16961-83-4, Fluorosilicic acid
(agent contg.; nitric acid-free paste-type pickling agent for local scale removal from stainless steel)
- L38 ANSWER 24 OF 89 HCA COPYRIGHT 2006 ACS on STN
- 137:51939 Air and water purification using continuous breakpoint halogenation and peroxygenation. Martin, Roy (United States Filter Corporation, USA). U.S. US 6409926 B1 **20020625**, 12 pp., Cont.-in-part of U. S. Ser. No. 6,149,819. (English). CODEN: USXXAM. APPLICATION: US 2000-707422 20001106. PRIORITY: US 1999-260810 19990302.
- AB A process for optimizing the rate of oxidn. using a combination of halogen, e.g., chlorine donors and peroxygen, e.g., **potassium monopersulfate** is described. The peroxygen compd. elevates the oxidn.-redn. potential of the body of water being treated. Simultaneously, a halogen donor is added to the body of water to maintain a ppm level of free halogen sufficient to insure sanitization. The amt. of free halogen is reduced and the ORP effective range expanded to 700-850 mV by addn. of an effective amt. of a coagulating agent. The feed rates and concns. of both oxidizers are optimized so as to achieve and maintain the targeted parameters. A high level of oxidn. is maintained which removes byproducts from the water and surrounding air.
- IT **7647-15-6**, Sodium bromide, processes
(air and water purifn. using continuous breakpoint halogenation and peroxygenation)
- RN 7647-15-6 HCA
- CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

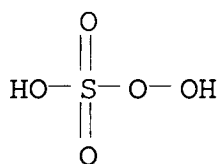
Br—Na

IT 25482-78-4 28831-12-1, Sodium
monopersulfate

(peroxygen compd.; air and water purifn. using continuous
breakpoint halogenation and peroxygenation)

RN 25482-78-4 HCA

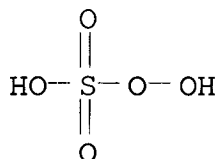
CN Peroxymonosulfuric acid, potassium salt (8CI, 9CI) (CA INDEX NAME)



●x K

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C02F001-52

INCL 210709000

CC 61-5 (Water)

Section cross-reference(s): 59

IT 87-90-1, Trichloroisocyanuric acid 2782-57-2, Dichloroisocyanuric
acid 7647-15-6, Sodium bromide, processes 7782-50-5,
Chlorine, processes

(air and water purifn. using continuous breakpoint halogenation
and peroxygenation)

IT 1313-60-6, Sodium peroxide 7722-84-1, Hydrogen peroxide, reactions
7727-21-1, Potassium peroxydisulfate 7727-54-0, Ammonium
persulfate 7775-27-1, Sodium peroxydisulfate 11138-47-9, Sodium

perborate 12653-78-0, Potassium perborate 17014-71-0, Potassium peroxide 25482-78-4 28831-12-1, **Sodium monopersulfate**

(peroxygen compd.; air and water purifn. using continuous breakpoint halogenation and peroxygenation)

L38 ANSWER 27 OF 89 HCA COPYRIGHT 2006 ACS on STN

136:122932 Method of treating industrial waste waters. Krulik, Gerald A.; Golden, Josh H. (Microbar Systems, Inc., USA). PCT Int. Appl.

WO 2002004359 A1 **20020117**, 22 pp. DESIGNATED STATES: W:

AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.

APPLICATION: WO 2001-US41284 20010706. PRIORITY: US 2000-PV216776 20000707; US 2001-894527 20010627.

AB A method of treating industrial waste waters is provided.

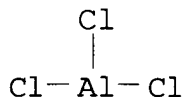
Specifically, the wastewater includes one or more org. contaminant materials and is pre-treated prior to filtering by the following steps. The pH of the wastewater is adjusted to a pH in the range of about 2 to 6, and a combination of iron salts and peroxide are added to the wastewater and allowed to react for a period of at least about three minutes. Next, the pH of the wastewater is adjusted upwards to a value of at least 7 and pptg. or flocculating agents are added to form an insol. contaminant bearing compd. The compd. is then filtered from the wastewater thereby removing the contaminant materials from the wastewater. This invention is particularly suited for use with single pass flow-through filters, and most particularly suitable for high flow rate single pass flow-through filters. The method of the present invention results in minimization of filter clogging and maintenance of high filtration flow rates, with reduced need for cleaning cycles using lengthy treatment by acid based or detergent mixts.

IT **7446-70-0**, Aluminum chloride, uses **7705-08-0**, Ferric chloride, uses **7758-94-3**, Ferrous chloride **28831-12-1**, **Sodium monopersulfate**

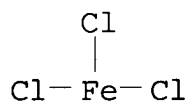
(method of treating industrial wastewaters)

RN 7446-70-0 HCA

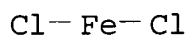
CN Aluminum chloride (AlCl₃) (9CI) (CA INDEX NAME)



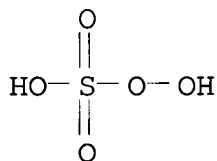
RN 7705-08-0 HCA
 CN Iron chloride (FeCl₃) (8CI, 9CI) (CA INDEX NAME)



RN 7758-94-3 HCA
 CN Iron chloride (FeCl₂) (8CI, 9CI) (CA INDEX NAME)



RN 28831-12-1 HCA
 CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C02F001-54
 CC 60-3 (Waste Treatment and Disposal)
 IT 79-21-0, Peroxyacetic acid 1309-33-7, Ferric hydroxide
 1309-37-1, Ferric oxide, uses 1327-41-9, Polyaluminum chloride
 1345-25-1, Ferrous oxide, uses 1834-30-6, Ferric acetate
 3094-87-9, Ferrous acetate 3313-92-6, Sodium percarbonate
 5905-52-2, Ferrous lactate **7446-70-0**, Aluminum chloride,
 uses **7705-08-0**, Ferric chloride, uses 7722-84-1,
 Hydrogen peroxide, uses **7758-94-3**, Ferrous chloride
 7775-27-1, Sodium peroxydisulfate 7783-83-7 8022-12-6, Ferric
 ammonium chloride 10043-01-3, Aluminum sulfate 10045-89-3,
 Ferrous ammonium sulfate 10138-04-2, Ferric ammonium sulfate
 10421-48-4, Ferric nitrate 11138-47-9, Sodium perborate
 11138-49-1, Sodium aluminate 15275-07-7 15805-39-7 18624-44-7,
 Ferrous hydroxide 23383-11-1, Ferrous citrate 28633-45-6, Ferric
 citrate **28831-12-1**, Sodium
monopersulfate 61943-75-7 64057-57-4, Sodium peracetate
 (method of treating industrial wastewaters)

L38 ANSWER 28 OF 89 HCA COPYRIGHT 2006 ACS on STN

136:122913 Method of treating semiconductor wastewaters. Krulik, Gerald A.; Golden, Josh H. (Microbar Systems, Inc., USA). PCT Int. Appl.

WO 2002004360 A1 20020117, 25 pp. DESIGNATED STATES: W:

AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.

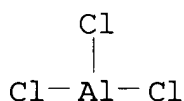
APPLICATION: WO 2001-US41285 20010706. PRIORITY: US 2000-PV216591 20000707; US 2001-894275 20010627.

AB A method of treating semiconductor wastewaters is provided. Specifically, the wastewater includes one or more org. contaminant materials and is pre-treated prior to filtering by the following steps. The pH of the wastewater is adjusted to a pH in the range of .apprx.2 to 6, and a combination of iron salts and peroxide are added to the wastewater and allowed to react for a period of at least about three minutes. Next, the pH of the wastewater is adjusted upwards to a value of at least 7 and pptg. or flocculating agents are added to form an insol. contaminant bearing compd. The compd. is then filtered from the wastewater thereby removing the contaminant materials from the wastewater. This invention is particularly suited for use with single pass flow-through filters, and most particularly suitable for high flow rate single pass flow-through filters. The method of the present invention results in minimization of filter clogging and maintenance of high filtration flow rates, with reduced need for cleaning cycles using lengthy treatment by acid, bases, or detergent mixts.

IT 7446-70-0, Aluminum chloride, uses
(flocculant; treatment of semiconductor wastewaters by
flocculation and filtration)

RN 7446-70-0 HCA

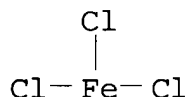
CN Aluminum chloride (AlCl₃) (9CI) (CA INDEX NAME)



IT 7705-08-0, Ferric chloride, uses 7758-94-3,
Ferrous chloride 28831-12-1, Sodium
monopersulfate
(treatment of semiconductor wastewaters by flocculation and
filtration)

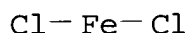
RN 7705-08-0 HCA

CN Iron chloride (FeCl₃) (8CI, 9CI) (CA INDEX NAME)



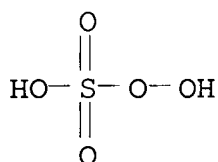
RN 7758-94-3 HCA

CN Iron chloride (FeCl₂) (8CI, 9CI) (CA INDEX NAME)



RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM C02F001-54

CC 60-2 (Waste Treatment and Disposal)

Section cross-reference(s): 76

IT 1302-42-7, Sodium aluminate 1327-41-9, Polyaluminum chloride
7446-70-0, Aluminum chloride, uses 10043-01-3, Aluminum
 sulfate

(flocculant; treatment of semiconductor wastewaters by
 flocculation and filtration)

IT 79-21-0, Peroxyacetic acid 1309-33-7, Ferric hydroxide
 1309-37-1, Ferric oxide, uses 1345-25-1, Ferrous oxide, uses
 1834-30-6, Ferric acetate 3094-87-9, Ferrous acetate 3313-92-6,
 Sodium percarbonate 5905-52-2, Ferrous lactate 7632-04-4, Sodium
 perborate **7705-08-0**, Ferric chloride, uses 7722-84-1,
 Hydrogen peroxide, uses **7758-94-3**, Ferrous chloride
 7775-27-1, Sodium peroxydisulfate 8022-12-6, Ferric ammonium
 chloride 10045-89-3, Ferrous ammonium sulfate 10138-04-2, Ferric
 ammonium sulfate 10421-48-4, Ferric nitrate 15805-39-7
 17099-81-9, Ferric EDTA 18624-44-7, Ferrous hydroxide 21393-59-9
 23383-11-1, Ferrous citrate 28633-45-6, Ferric citrate
28831-12-1, Sodium monopersulfate
 61943-75-7 64057-57-4, Sodium peracetate

(treatment of semiconductor wastewaters by flocculation and filtration)

L38 ANSWER 29 OF 89 HCA COPYRIGHT 2006 ACS on STN

136:22855 Pickling agent for scale removal of stainless steel. Sato, Takaaki; Makino, Toshiaki (Nippon Hyomen Kagaku K. K., Japan). Jpn. Kokai Tokkyo Koho JP 2001335977 A2 **20011207**, 5 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-154445 20000525.

AB The agent contains H₃PO₄, HF or its salt, and H₂SO₅ or its salt. Preferably, the agent comprises H₃PO₄ 50-500, HF or its salt 1-300, and H₂SO₅ or its salt 1-500 g/L. The agent may further contains 0.01-50 g/L arom. sulfonic acid and its salt and 0.01-50 g/L nonionic surfactant. The title agent is suitable for removing the scales formed during the hot rolling, annealing, and quenching of stainless steels.

IT **7789-75-5**, Calcium fluoride, uses **15593-29-0**, Sodium persulfate (pickling agent contg.; pickling agent for scale removal of stainless steel)

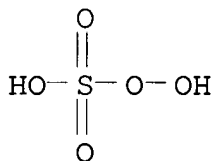
RN 7789-75-5 HCA

CN Calcium fluoride (CaF₂) (9CI) (CA INDEX NAME)

F—Ca—F

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

IC ICM C23G001-08

ICS C11D001-72; C11D001-722; C11D007-04; C11D007-18; C11D007-34

CC 55-6 (Ferrous Metals and Alloys)

Section cross-reference(s): 38

IT 657-84-1, Sodium toluenesulfonate 1333-39-7, Phenolsulfonic acid
1341-49-7, Acid ammonium fluoride 7664-38-2, Phosphoric acid, uses
7664-39-3, Hydrofluoric acid, uses 7722-86-3, Persulfuric acid
7789-75-5, Calcium fluoride, uses **15593-29-0**,
Sodium persulfate 25155-19-5, Naphthalenesulfonic acid

(pickling agent contg.; pickling agent for scale removal of stainless steel)

L38 ANSWER 30 OF 89 HCA COPYRIGHT 2006 ACS on STN

135:124156 Bactericide combinations in detergents. Elsmore, Richard; Houghton, Mark Phillip (Robert McBride Ltd., UK). Brit. UK Pat. Appl. GB 2354771 A1 **20010404**, 53 pp. (English). CODEN: BAXXDU. APPLICATION: GB 1999-23253 19991001.

AB The detergent comprises a bactericide in combination with an anionic, cationic, nonionic or amphoteric surfactant which has a C12-18 alkyl group as the longest chain attached to the hydrophilic moiety. Creduret 50 (hydrogenated ethoxylated castor oil) 50, citric acid 12, formalin 10, sodium alkyl benzene sulfonate (C12-20) alkyl 1, perfume white line 0.5, detergent enzyme savingase 0.2, and bactericide Pr 4-hydroxybenzoate 1.0 parts formed a detergent, showing redn. activity after contact 2.

IT **7646-85-7**, Zinc chloride (ZnCl_2), uses **7647-15-6**, Sodium bromide (NaBr), uses **7681-49-4**, Sodium fluoride (NaF), uses **7699-45-8**, Zinc bromide (ZnBr_2) **7758-02-3**, Potassium bromide (KBr), uses **7758-89-6**, Copper chloride (CuCl) **7783-90-6**, Silver chloride (AgCl), uses **7786-30-3**, Magnesium chloride (MgCl_2), uses **10058-23-8**

(bactericide combinations in detergents)

RN 7646-85-7 HCA

CN Zinc chloride (ZnCl_2) (9CI) (CA INDEX NAME)

Cl—Zn—Cl

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 7681-49-4 HCA

CN Sodium fluoride (NaF) (9CI) (CA INDEX NAME)

F—Na

RN 7699-45-8 HCA

CN Zinc bromide (ZnBr_2) (9CI) (CA INDEX NAME)

Br—Zn—Br

RN 7758-02-3 HCA
 CN Potassium bromide (KBr) (9CI) (CA INDEX NAME)

Br-K

RN 7758-89-6 HCA
 CN Copper chloride (CuCl) (8CI, 9CI) (CA INDEX NAME)

Cl-Cu

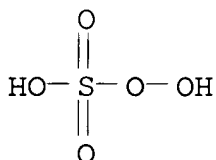
RN 7783-90-6 HCA
 CN Silver chloride (AgCl) (9CI) (CA INDEX NAME)

Ag-Cl

RN 7786-30-3 HCA
 CN Magnesium chloride (MgCl₂) (9CI) (CA INDEX NAME)

Cl-Mg-Cl

RN 10058-23-8 HCA
 CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IC ICM C11D003-48
 CC 46-6 (Surface Active Agents and Detergents)
 IT 1119-97-7 1120-24-7 1120-48-5 1121-30-8 1121-31-9
 1123-85-9 1135-66-6 1192-52-5 1205-17-0 1209-61-6
 1222-05-5 1300-71-6 1303-28-2, Arsenic oxide (As₂O₅)
 1303-86-2, Boron oxide (B₂O₃), uses 1303-96-4D, Borax
 (B₄Na₂O₇·10H₂O), reaction products with sulfuric acid 1305-78-8,
 Calcium oxide, uses 1309-48-4, Magnesium oxide (MgO), uses
 1310-58-3, Potassium hydroxide (K(OH)), uses 1310-73-2, Sodium

hydroxide (Na(OH)), uses 1314-13-2, Zinc oxide (ZnO), uses 1314-84-7, Zinc phosphide (Zn₃P₂) 1317-38-0, Copper oxide (CuO), uses 1317-39-1, Copper oxide (Cu₂O), uses 1319-77-3 1320-44-1 1322-14-1 1323-00-8 1327-53-3, Arsenic oxide (As₂O₃) 1330-43-4, Boron sodium oxide (B₄Na₂O₇) 1331-83-5 1332-07-6 1332-65-6, Copper chloride hydroxide (Cu₂Cl(OH)₃) 1333-53-5 1333-58-0 1333-82-0, Chromium oxide (CrO₃) 1333-83-1, Sodium fluoride (Na(HF₂)) 1334-78-7 1335-10-0 1335-12-2 1335-46-2 1341-49-7, Ammonium fluoride ((NH₄)(HF₂)) 1405-92-1 1414-45-5, Nisin A 1438-94-4 1446-61-3 1490-04-6 1634-02-2 1643-20-5 1696-17-9 1715-30-6 1777-82-8 1854-23-5 1854-26-8 1875-89-4 1885-38-7 1892-43-9 1897-45-6 1983-10-4 2016-56-0 2019-69-4 2032-65-7 2050-08-0 2090-05-3 2104-96-3 2120-70-9 2155-70-6 2216-51-5 2224-44-4 2244-16-8 2244-21-5 2275-23-2 2279-96-1, Butanediperoxoic acid 2305-25-1 2310-17-0 2372-82-9 2374-05-2 2390-68-3 2436-90-0 2439-10-3 2445-76-3 2463-53-8, 2-Nonenal 2491-38-5 2492-26-4 2500-83-6 2527-57-3 2527-58-4 2565-36-8 2571-88-2 2631-40-5 2634-33-5, 1,2-Benzisothiazol-3(2H)-one 2639-63-6 2682-20-4 2756-56-1 2782-57-2 2832-19-1 2871-78-5 2875-41-4D, Glycine, N-(3-aminopropyl)-, N'-C10-16-alkyl derivs., hydrochlorides 2893-78-9 2921-88-2 3006-10-8 3033-23-6 3064-70-8 3090-35-5 3142-72-1 3228-02-2 3302-10-1 3313-92-6 3332-27-2 3380-34-5 3383-96-8 3398-33-2 3547-33-9 3586-55-8 3691-35-8 3696-28-4 3697-42-5 3710-84-7 3766-81-2 3784-03-0 3785-34-0 3811-68-5 3811-73-2 3811-75-4 3851-97-6 3926-62-3D, Acetic acid, chloro-, sodium salt, reaction products with 4,5-dihydro-1H-imidazole-1-ethanol 2-norcoco alkyl derivs. and sodium hydroxide 3926-62-3D, Sodium chloroacetate, reaction products with B-C12-18 alkylmethylenediamines 3984-22-3 4075-81-4 4080-31-3 4151-50-2 4169-04-4 4180-23-8 4182-44-9 4191-73-5 4247-02-3 4299-07-4 4299-60-9 4317-72-0 4317-79-7 4342-36-3 4454-05-1D, reaction products with ethanol 4525-33-1 4574-04-3 4602-84-0 4707-47-5 4719-04-4 4724-48-5 4824-78-6 4940-11-8 5026-62-0 5039-78-1 5153-25-3 5197-80-8 5329-14-6, Sulfamic acid 5332-73-0 5392-40-5 5395-50-6 5437-45-6 5454-19-3 5462-06-6 5471-51-2 5538-94-3 5538-95-4 5598-13-0 5625-90-1 5725-96-2 5836-29-3 5915-41-3 5972-76-9 6001-64-5 6011-99-0 6051-03-2 6152-33-6 6317-18-6 6324-78-3 6378-65-0 6413-26-9 6440-58-0 6485-40-1 6542-37-6 6582-31-6 6834-92-0 6843-97-6 6915-15-7 6939-35-1 6988-21-2 7080-50-4 7166-19-0 7173-51-5 7173-62-8 7281-04-1 7287-19-6 7320-34-5 7378-99-6 7440-22-4, Silver, uses 7440-50-8, Copper, uses 7446-20-0, Zinc sulfate heptahydrate 7491-20-5 7491-21-6 7492-67-3 7540-51-4 7549-37-3 7553-56-2, Iodine, uses 7601-54-9D, Trisodium

phosphate, chlorinated 7631-89-2 7631-90-5 7632-04-4
 7637-07-2D, Boron trifluoride, reaction products with 2-propanol and
 5-ethylidenebicyclo[2.2.1]hept-2-ene 7640-33-7 **7646-85-7**
 , Zinc chloride (ZnCl₂), uses 7647-01-0, Hydrochloric acid, uses
7647-15-6, Sodium bromide (NaBr), uses 7664-38-2,
 Phosphoric acid, uses 7664-41-7, Ammonia, uses 7664-93-9,
 Sulfuric acid, uses **7681-49-4**, Sodium fluoride (NaF), uses
 7681-52-9 7681-55-2 7681-57-4 7681-93-8 7696-12-0
 7697-37-2, Nitric acid, uses **7699-45-8**, Zinc bromide
 (ZnBr₂) 7704-34-9, Sulfur, uses 7722-64-7 7722-84-1, Hydrogen
 peroxide (H₂O₂), uses 7722-86-3, Peroxymonosulfuric acid
 7726-95-6, Bromine, uses 7727-21-1 7733-02-0 7747-35-5
 7757-81-5 7757-83-7 **7758-02-3**, Potassium bromide (KBr),
 uses 7758-19-2 **7758-89-6**, Copper chloride (CuCl)
 7758-98-7, Sulfuric acid copper(2+) salt (1:1), uses 7758-99-8
 7775-09-9 7775-27-1

(bactericide combinations in detergents)

IT 7778-39-4, Arsenic acid (H₃AsO₄) 7778-43-0 7778-50-9 7778-54-3
 7778-66-7 7779-27-3 7779-73-9 7779-78-4 7779-81-9
 7782-44-7, Oxygen, uses 7782-50-5, Chlorine, uses 7783-20-2,
 Sulfuric acid diammonium salt, uses **7783-90-6**, Silver
 chloride (AgCl), uses 7786-29-0 **7786-30-3**, Magnesium
 chloride (MgCl₂), uses 7789-09-5 7789-12-0 7789-29-9,
 Potassium fluoride (K(HF₂)) 7789-33-5, Iodine bromide (IBr)
 7790-28-5 7790-99-0, Iodine chloride (ICl) 7803-51-2, Phosphine
 8000-41-7, Terpeneol 8007-35-0 8018-01-7 9001-37-0 9002-91-9
 9003-07-0D, Polypropylene, phenol derivs. 9003-29-6 9003-63-8
 9003-99-0, Peroxidase 9004-82-4 9004-98-2 10028-15-6, Ozone,
 uses 10031-43-3 10032-15-2 10043-35-3, Boric acid (H₃BO₃),
 uses 10049-04-4, Chlorine oxide (ClO₂) **10058-23-8**
 10101-41-4 10124-37-5 10154-75-3 10187-52-7 10198-23-9
 10222-01-2 10235-63-9 10294-64-1 10332-33-9 10339-55-6
 10345-79-6 10377-60-3 10378-23-1 10380-28-6 10453-86-8
 10460-00-1 10482-56-1 10486-00-7 10543-57-4 10588-01-9
 10588-15-5 10595-49-0 10605-21-7 10605-21-7D, Methyl
 1H-benzimidazol-2-ylcarbamate, compds. with benzenesulfonic acid
 mono-C10-14-alkyl derivs. 11031-45-1, Santalol 11050-62-7
 11084-85-8, Sodium hypochlorite phosphate (Na13(ClO)(PO₄)₄)
 11096-42-7 12008-41-2, Boron sodium oxide (B₈Na₂O₁₃) 12062-24-7
 12069-69-1 12122-67-7 12124-97-9, Ammonium bromide ((NH₄)Br)
 12179-04-3 12267-73-1 12280-03-4 12427-38-2 13014-03-4
 13019-22-2, 9-Decen-1-ol 13052-19-2 13108-52-6 13149-79-6
 13167-25-4 13197-76-7 13254-34-7 13351-61-6 13426-91-0
 13435-05-7 13463-41-7 13463-67-7, Titanium oxide (TiO₂), uses
 13516-27-3 13517-11-8, Hypobromous acid 13532-18-8 13590-97-1
 13701-59-2 13707-65-8 13720-12-2 13755-29-8 13824-96-9
 13826-83-0 13840-33-0 13863-41-7, Bromine chloride (BrCl)
 13877-91-3 13980-04-6 14073-97-3 14371-10-9 14548-60-8

14576-08-0 14667-55-1 14676-61-0D, 1-Propanamine,
 3-(tridecyloxy)-, branched 14762-38-0 14816-18-3 14915-37-8
 14936-67-5 15323-35-0 15435-29-7 15510-55-1 15627-09-5
 15630-89-4 15707-23-0 15733-22-9 15739-09-0 15809-19-5
 15986-80-8 16079-88-2 16219-75-3D, 5-
 Ethylidenebicyclo[2.2.1]hept-2-ene, reaction products with boron
 trifluoride and 2-propanol 16228-00-5 16409-43-1 16491-36-4
 16752-77-5 16828-95-8 16871-71-9 16893-85-9 16919-19-0
 16949-65-8 16961-83-4 17084-08-1 17342-21-1 17804-35-2
 18181-70-9 18181-80-1 18205-85-1 18339-16-7 18472-51-0
 18479-54-4 18479-57-7 18675-16-6 18675-17-7 18794-84-8
 18829-56-6 18854-01-8 18972-56-0 19014-05-2 19093-20-0
 19379-90-9 19388-87-5 19578-81-5 19766-89-3 19819-98-8
 19870-74-7 20013-73-4 20018-09-1 20543-04-8 20545-92-0
 20662-57-1 20679-58-7 20834-59-7 20859-73-8, Aluminum
 phosphide (AlP) 21129-27-1 21145-77-7 21564-17-0 21757-82-4
 21834-92-4 22009-37-6 22205-45-4, Copper sulfide (Cu₂S)
 22221-10-9 22248-79-9 22781-23-3 22882-89-9 22882-91-3
 22936-75-0 22981-54-0 23031-36-9 23495-12-7 23560-59-0
 23564-05-8 23726-92-3 23726-94-5 23787-90-8 24019-05-4
 24048-13-3 24111-17-9 24124-25-2 24291-45-0 24634-61-5
 24720-09-0 24851-98-7 25068-14-8 25155-18-4 25155-29-7
 25167-82-2 25225-10-9 25254-50-6 25265-71-8 25304-14-7
 25377-70-2 25628-84-6 25655-41-8 25988-97-0 26002-80-2
 26062-79-3 26172-55-4 26248-98-6 26354-18-7 26530-03-0
 26530-20-1 26545-49-3 26617-87-8 26635-93-8 26781-23-7
 27083-27-8 27176-87-0 27236-65-3 27253-29-8 27323-41-7
 27697-50-3 28069-74-1 28159-98-0 28219-61-6 28302-36-5
 28387-62-4 28434-00-6 28434-01-7 28558-32-9 28645-51-4,
 Oxacycloheptadec-10-en-2-one 28728-61-2 28772-56-7 28777-01-7
 28805-58-5 29232-93-7 29350-73-0
 (bactericide combinations in detergents)

L38 ANSWER 42 OF 89 HCA COPYRIGHT 2006 ACS on STN

131:76453 Removal of copper and nickel impurity from chromium recovered
 from metal scrap. Rabah, M. A.; Hewaidy, J. F. (Industrial Wastes
 Laboratory, Central Metallurgical Research and Development Institute
 (CMRDI), Cairo, 11421, Egypt). Pyrometallurgical Operations, the
 Environment and Vessel Integrity in Nonferrous Smelting and
 Converting, Proceedings of the Nickel-Cobalt 97 International
 Symposium, Sudbury, Ont., Aug. 17-20, 1997, 339-351. Editor(s):
 Diaz, Carlos; Holubec, Igor; Tan, Chai G. Canadian Institute of
 Mining, Metallurgy and Petroleum: Montreal, Que. (English)
 1997. CODEN: 67OCAV.

AB Chromium metal was recovered from scrapped chromium-coated elec.
 appliances and nickel-copper alloy by electrowinning and
 pyrometallurgical treatments. The obtained chromium contains nickel
 and copper impurity. Removal of these two elements was carried out

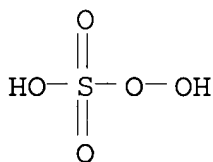
applying two methods; by fluxing the molten impure chromium with pyrite and sodium persulfate at 1800.degree.C to form slag composed of complex sulfides of different valences ~~Mx~~-Fey Sz or by acid leaching and pptg. as copper and nickel sulfides. Parameters affecting the efficiency of chromium refining such as temp., time and stoichiometric ratio of the reagents were investigated. Results revealed that acid leaching method is more significant as compared to the pyrometallurgical method to remove nickel and copper from impure chromium. Copper and nickel ions were successfully removed as sulfides at pH value 1-2 and 8.5 resp. The filtered chromium soln. was electrolyzed using a cell fitted with graphite anode. In parallel, chromite was prepd. by roasting with sodium carbonate whereby it was reduced with carbon at 1450.degree.C. Pure chromium having a purity of 99.992 % was obtained and the efficiency of recovery amts. to 94%.

IT 15593-29-0, Sodium persulfate

(fluxing agent; removal of copper and nickel impurity by fluxing and leaching from chromium recovered from metal scrap)

RN 15593-29-0 HCA

CN Peroxymonosulfuric acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



●2 Na

CC 54-2 (Extractive Metallurgy)

IT 1309-36-0, Pyrite, uses 15593-29-0, Sodium persulfate

(fluxing agent; removal of copper and nickel impurity by fluxing and leaching from chromium recovered from metal scrap)

L38 ANSWER 47 OF 89 HCA COPYRIGHT 2006 ACS on STN

127:283153 Water treatment method. Brown, Geoffrey A.; Lines, Mary L.; Miller, James J. (Bio-Lab, Inc., USA). PCT Int. Appl. WO 9734835 A1 19970925, 27 pp. DESIGNATED STATES: W: AU, BR, CA, JP, MX, NZ; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1997-US4200 19970318. PRIORITY: US 1996-13601 19960318.

AB A method of treating water by adding a shelf-stable compn. of hydrogen peroxide and a polyquaternary ammonium compd., followed by intermittent treatment with chlorine-, bromine- or oxygen-releasing compds. is described. The method is esp. suitable for purifn. of

water in swimming pools, hot tubs, and cooling towers.

IT 7647-15-6, Sodium bromide, biological studies

10361-76-9

(water treatment method for biofouling control in swimming pools and cooling towers)

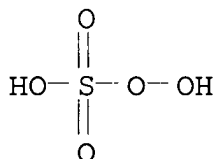
RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br- Na

RN 10361-76-9 HCA

CN Peroxymonosulfuric acid, dipotassium salt (8CI, 9CI) (CA INDEX NAME)



● 2 K

IC ICM C02F001-50

CC 61-8 (Water)

IT 87-90-1 106-89-8, 1-Chloro-2,3-epoxypropane, biological studies
2893-78-9, Sodium dichloroisocyanurate 5225-86-5 7647-15-6

, Sodium bromide, biological studies 7681-52-9, Sodium
hypochlorite 7722-84-1, Hydrogen peroxide (H2O2), biological

studies 7726-95-6, Bromine, biological studies 7778-54-3,

Calcium hypochlorite 7782-50-5, Chlorine, biological studies

10361-76-9 13840-33-0, Lithium hypochlorite 31512-74-0

32131-17-2, biological studies 106675-76-7

(water treatment method for biofouling control in swimming pools and cooling towers)

L38 ANSWER 64 OF 89 HCA COPYRIGHT 2006 ACS on STN

106:52155 Household laundry detergent with dual strength bleach.

Hudson, John O.; Schleien, Mickey M.; Barrett, John (Purex Corp., USA). U.S. US 4618444 A 19861021, 18 pp. (English).

CODEN: USXXAM. APPLICATION: US 1984-651579 19840917.

AB Laundry aid packages consist of containers filled with peroxide bleaches (e.g. peroxy sulfate, peroxyphthalate) and halide salts, and dispensing containers filled with bleach activators contg. other halide salts. The 2nd container is readily detachable from the 1st

for dispensing to controllably activate hypohalites at the time of laundering.

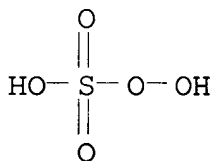
IT 7647-14-5, Sodium chloride, uses and miscellaneous
7647-15-6, Sodium bromide, uses and miscellaneous
(activators, for peroxide bleaches for laundering, packaging of)
RN 7647-14-5 HCA
CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

RN 7647-15-6 HCA
CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br-Na

IT 10058-23-8
(bleaching compns., for laundering, packaging of activators for)
RN 10058-23-8 HCA
CN Peroxymonosulfuric acid, monopotassium salt (8CI, 9CI) (CA INDEX NAME)



● K

IC C11D017-00; B08D003-00
INCL 252092000
CC 46-5 (Surface Active Agents and Detergents)
IT 7647-14-5, Sodium chloride, uses and miscellaneous
7647-15-6, Sodium bromide, uses and miscellaneous
(activators, for peroxide bleaches for laundering, packaging of)
IT 10058-23-8 37222-66-5, Oxone 78948-87-5, Magnesium
monoperoxyphthalate
(bleaching compns., for laundering, packaging of activators for)

L38 ANSWER 74 OF 89 HCA COPYRIGHT 2006 ACS on STN
99:45965 Photographic persulfate bleach baths. Fyson, J. R. (UK).
Research Disclosure, 230, 222-3 (No. 23028) (English) 1983
. RD 230028 19830610. CODEN: RSDSBB. ISSN: 0374-4353. PRIORITY:

RD 1983-230028 **19830610.**

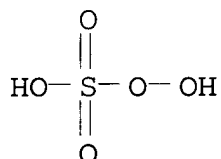
AB A photog. persulfate bleach bath which exhibits increased rate of bleaching contains a metal salt (or complex). When a Cu salt is employed in the bleach it also stabilizes the soln. against decompn. Thus, an exposed and developed cine film was bleached with a soln. prepd. by mixing NH₃ 10 cm³, NH₄Cl 100, NaOAc 15, Na₂S₂O₈ 100 g, and H₂O to 1 L and adding CuSO₄·5H₂O 5 g/L (pH adjusted to 5 with H₂SO₄). The bleach rate was 125 min⁻¹ .times. 10⁻³ vs. 1.2 min⁻¹ .times. 10⁻³ for a Cu salt free control.

IT **28831-12-1**

(photog. bleach baths contg. metal salt and, for increased bleaching rate)

RN 28831-12-1 HCA

CN Peroxymonosulfuric acid, monosodium salt (9CI) (CA INDEX NAME)

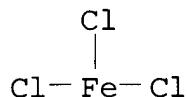


● Na

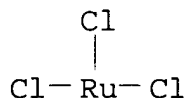
IT **7705-08-0**, uses and miscellaneous **10049-08-8****10241-04-0**

(photog. persulfate bleach baths contg., for increased bleaching rate)

RN 7705-08-0 HCA

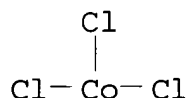
CN Iron chloride (FeCl₃) (8CI, 9CI) (CA INDEX NAME)

RN 10049-08-8 HCA

CN Ruthenium chloride (RuCl₃) (6CI, 8CI, 9CI) (CA INDEX NAME)

RN 10241-04-0 HCA

CN Cobalt chloride (CoCl₃) (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



- CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT **28831-12-1**
(photog. bleach baths contg. metal salt and, for increased bleaching rate)
- IT **7705-08-0**, uses and miscellaneous 7758-98-7, uses and miscellaneous 7785-87-7 7786-81-4 **10049-08-8**
10101-53-8 **10241-04-0** 12027-67-7 16903-35-8
86476-30-4
(photog. persulfate bleach baths contg., for increased bleaching rate)
- L38 ANSWER 77 OF 89 HCA COPYRIGHT 2006 ACS on STN
98:77958 Cleanser with improved afterodor and tarnish resistance. Eoga, Anthony B. J. (Warner-Lambert Co. , USA). U.S. US 4362639 A **19821207**, 7 pp. Cont.-in-part of U.S. Ser. No. 251,030. (English). CODEN: USXXAM. APPLICATION: US 1981-297892 19810831. PRIORITY: US 1981-251030 19810403.
- AB A cleansing compn. for dentures, etc., contains at least 1 oxidizing agent such as alkali metal monopersulfate (35-60% by wt.), a bleaching promoter such as alkali metal or alk. earth **metal halides** (up to 20% by wt.) and a perborate sufficient to inhibit metal tarnish and corrosion. Further, ammonium ions in the compn. inhibit emission of Cl-like odor. Thus, a cleanser compn. was prepd. contg. **NaCl** 13.8, ammonium citrate [7632-50-0] 1.3, (NH₄)₂SO₄ 0.5, water 0.19, Na₂CO₃ 26.9, Na₃PO₄ 0.85, **K monopersulfate** 45.3, tetra-Na EDTA.2H₂O 0.7, Na perborate 5.7, flavor 0.87, detergent 0.14, NaOBz 0.53, Mg stearate 0.06, poly(tetrafluoroethylene) 0.34, and erythorbic acid 2.8%. This compn. exhibited aftertaste suppression, improved Cl-like odor and tarnish resistance.
- IT **7647-14-5**, biological studies
(denture cleansing compns. contg.)
- RN 7647-14-5 HCA
- CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl-Na

- IC C11D003-395; C11D007-10; C11D007-18; C11D017-00
INCL 252099000
CC 62-7 (Essential Oils and Cosmetics)

ST cleanser denture; persulfate denture cleanser; **metal**
halide denture cleanser; perborate denture cleanser;
ammonium salt denture cleanser; dentifrice denture cleanser

IT Dentifrices
(denture cleansers, ammonium salts and **metal**
halides and perborates and persulfates for)

IT 7632-04-4 7632-50-0 **7647-14-5**, biological studies
7727-21-1 7783-20-2, biological studies 10124-31-9 12125-02-9,
biological studies
(denture cleansing compns. contg.)

L38 ANSWER 86 OF 89 HCA COPYRIGHT 2006 ACS on STN
73:59070 Smokestack aerosol gas purifier. Marks, Alvin M. U.S. US
3520662 **19700714**, 3 pp. (English). CODEN: USXXAM.
APPLICATION: US 1968-764404 19681002.

AB An app. is described for purifying combustion gases with a charge
aerosol. Thus, distd., tap, or **salt water** is
discharged at 1 ml/min through nozzles to a perforated charge plate
of opposite voltage. Absorption of SO₂ is 99% when air contg. 1000
ppm SO₂ flows at 560 ml/min through the charged aerosol. At
.apprx.10 ft³/min air flow, elec. power requirements are .apprx.27
W/ft². Also, **K monopersulfate** (for CO
absorption) or NaOH (for larger vols. of SO₂) may be included in the
water. Similarly, the aerosol is discharged through porous ceramic
having 1-100 .mu. pore diam.

IC B01J; B03C
INCL 023284000
CC 59 (Air Pollution and Industrial Hygiene)